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On the creative ecosystem: investigating ecosystem approaches through the creative sector

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On the creative ecosystem: investigating ecosystem approaches through the creative sector

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Abstract

The creative industries are a politically and economically attractive sector, characterised recently by high-growth policy initiatives. Arguably there has been limited consideration by the policy environment of the driving values of the micro-scale organisations that dominate the sector, partly because of the way the industry is mapped and measured in policy circles. Recent cultural policy debates attempting to reflect a broader range of values and inputs have led to the concept of the 'creative ecosystem'. Whilst 'ecosystem' is popular both as a metaphor and emerging framework for regional growth and innovation, to date it has not been used as a reliable tool to map any industry sector. This thesis therefore investigates the concept of the creative ecosystem by applying a literature-based framework to UK creative industries data. It does so to ask whether such an approach can improve both our understanding of the sector and the support for businesses within it. The thesis develops an original theoretical and investigative framework based on Moore's (1996) business ecosystem, Isenberg's (2011) entrepreneurial ecosystem and Holden's (2015) cultural ecology approaches. It applies this framework to generate three empirical perspectives on the creative ecosystem:

- a 'top-down' mapping using secondary data,
- sector stakeholder perspectives using primary data from interviews, and
- micro-enterprise perspectives from a series of in-depth case studies.

Attempts to consolidate the various approaches to ecosystem have been limited, both in the creative sector and in broader business and entrepreneurship literature. The study finds that each approach provides a partial understanding, but also finds little evidence to support a combined meta-ecosystem model. As a specific mapping tool there is work required across the current multiplicity of approaches to reach a shared definition and practical application. However, this investigation makes a significant and detailed contribution to understanding the breadth and relational nature of ecosystem approaches, the creative ecosystem as a construct, and the value this holds for policy to support creative micro-enterprises.

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Finally, I acknowledge and thank the examiners of my PhD.

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Tables and figures

1) The creative industries: ways of seeing

"The creative industries are unlikely to make a dent in the UK's productivity problem unless policymakers can increase the number of high productivity growth scale-up businesses."

(Garcia et al. 2018: 8)

"Policy assumes that growth means single companies growing ever larger, say from 1 person to 60 people, but growth in the cultural sector often does not conform to that model."

(Holden 2015: 20)

This study is focused on the creative industries in the UK, and specifically the micro-enterprises within this sector. Research on the composition of the creative industries shows that the sector is dominated by micro-enterprises and self-employed individuals, and yet they are under-represented in sector statistics (Pratt and Hutton 2013). Despite the significance of the creative industries' economic contribution, economic growth is often not a dominant business driver for these types of organisation (Holden 2015). Those debating the history and characteristics of the creative industries are in no doubt that the sector is economically significant and have often used this platform for further debate. However, they also note that the 'creative industries' developed from a longer tradition of arts and cultural work and this has been the focus of different discussions of value and worth. The debates around this topic have become complex and contested, but there has been significant concern that the economic value of creative outputs threatens to overshadow the other, possibly wider, values of arts and creativity (Flew 2011, Holden 2004, Holden and Balt 2012). Indeed, there is criticism that this economic and growth-focused significance of the sector has biased the policy support available to individuals and organisations across the industry, at the expense of cultural and creative values (Belfiore 2012, Gauntlett 2011). Arguably, this train of discussion led to the Warwick Commission on the Future of Cultural Value (Neelands et al. 2015), which explored issues around infrastructure and support to the cultural and creative sector. Significantly, this report also made reference to the concept of the 'cultural and creative

ecosystem' to encapsulate the full breadth and interconnectedness of the sector. Whilst this was not well articulated as a theoretical model, it built upon a growing trend for ecological terminology both within the sector and in business and entrepreneurship research. Within these business and entrepreneurial literatures can be found further, more detailed, expositions of the ecosystem construct.

This thesis examines the application of these ecosystem approaches to a specific industry sector, in this case the creative industries as defined in current UK policy. Woven throughout the introduction and background are reflections on the policy and support implications for the creative industries. The creative industries represent an economically significant sector, with a policy drive to increase growth in terms of productivity, turnover and business size; and a corresponding research interest in the methods and impacts of achieving this. When considered in light of the knowledge that the creative industries are dominated by micro-enterprises with a range of business journeys and growth aspirations, this creates a source of potential conflict, and a barrier to growth and development. This study explores and applies three theoretical ecosystem frameworks, asking what contributions they make to our understanding of and support for the creative industry micro-enterprise. Ultimately the study asks if these ecosystem frameworks, individually or combined, can better inform support for the creative sector to generate its full potential economic, social and cultural contribution.

Given the aim of the thesis, this chapter sets out the current economic and political position of the creative industries which has framed debates as to what they are and the value they bring to the economy and society. At the time of writing, there are a number of accepted positions on the creative industries that shape policy and research perspectives. The creative industries are widely seen to be a development of the arts and cultural sector (Hesmondhalgh 2007, Hewison 2014), they are increasingly economically significant (Creative Industries Council 2014, Department for Culture Media & Sport 2016, The Work Foundation 2007), and they are dominated by micro-enterprises (Middlesex University et al. 2016). After introducing how and why recent conceptual discussion about the creative sector has seen a shift from economy to ecosystem; the chapter outlines the potential for 'ecosystem' to offer a new perspective for, and on, the sector. In this way the chapter

works toward a statement of the research question that this study will address. It does so to set the scene for an argument that policy and business support do not fully reflect the nature of the sector, partly because the sector is not easily measured by existing frameworks. The study argues that ecosystem approaches could offer a frame for a greater sense of the 'whole' (of the sector), particularly where highlighting 'lived' support frameworks of a sector. This focus develops a deeper and more nuanced understanding of the creative industries as well as subsequent messages for policy and sectoral support frameworks.

a) Lenses on the creative industries

Garnham suggested that two academic perspectives have shaped debate around the creative industries; that of political economy, and a cultural studies approach (2005). The political economy perspective focuses on the 'industry' and organising characteristics of the system. Garnham (2005) and O'Connor (2007) describe the range of implications from this political economy perspective, which, given its nature, was more easily incorporated into government thinking - definitions of sub-sectors were amended based on the debates here, for example. However, a cultural studies perspective suggests that this neglects the 'creative' side, and particularly the breadth of cultural activity that goes in to the wider system. Cultural studies perspectives have focused on wider concepts of the public value (Holden, 2006) and "social potential" (Reid et al. 2010: 11) of the arts and culture. This section of the discussion explores three key areas of currently accepted orthodoxy around the creative industries. The first of these is the way in which they are considered to be a development of the arts and cultural sector (Hesmondhalgh 2007, Hewison 2014), and the way in which this impacts the policy and support approaches for the sector. Closely linked to this is the economic significance of the sector which forms the second key area of introduction (Creative Industries Council 2014, Department for Culture Media & Sport 2016, The Work Foundation 2007), and further considerations of the support provided from the policy perspective are also discussed here. The third aspect concerns the industrial and organisational structure within the sector which is dominated by micro-enterprises (Barker and Henry 2016, Middlesex University et al. 2016, Sorensen

2013). However, this latter point is not reflected in current policy understandings and business support approaches, and the background to this is also covered.

From 'the arts' to the 'creative industries'

Whilst the majority of coverage of the creative industries focuses on the New Labour effect post-1997, Flew (2011) and others identified drivers of a shift towards the 'creative economy' from the mid to late 1970s, pointing to changes in the political and financial climate around manufacturing and industry, market-led approaches, and the beginnings of what is now discussed as 'neo-liberalism' (Hewison 2014). The late 1990s also saw "a step change in recognition of the sector's contribution to social development" (Reeves 2002: 20), which, coinciding with the election of the Labour government, led to a focus on issues of inclusion through public funding. The corollary to this was increased attention on the efficiency, accountability and measurement of public funding and the introduction of performance measurement approaches across all sectors, including culture (Belfiore and Bennett 2008, Hewison 2014, Reeves 2002). These political changes contributed to dissatisfaction in the arts and cultural sector that "culture seemed to be valued by politicians only in terms of what it could achieve for other economic and social agendas" (Holden 2006: 13). This trend led to the establishment of the 'creative industries' as a discrete industry sector as part of the Labour government re-organisation in 1997, and which was seen as the repackaging of the arts and heritage "as part of a new economic phenomenon" (Hewison 2014: 28).

The 'creative industries' brought together a number of creative and cultural disciplines linked by their collective focus on the exploitation of intellectual property as a means of creating financial value (Department for Culture Media & Sport 1998, Howkins 2001). Initially grouping businesses, organisations and individuals in thirteen sub-sectors, the definition now captures nine creative and cultural fields as described in government statistics reports (Department for Culture Media & Sport 2016)[1]. The past twenty years have seen critique and analysis focused on the implications of the chosen terminology to

[1] The nine sub-sectors are advertising and marketing; architecture; crafts; design (product, graphic and fashion); film, TV, video, radio and photography; IT, software and computer services; publishing; museums, galleries and libraries; music, performing and visual arts.

describe and define the sector, and particularly the significance of the change from 'cultural' to 'creative' policy adopted by the Labour governments from 1997. Bilton argues that "the effect has been to change the status of arts and culture from a matter for cultural policy into an issue of economic development and wealth creation" (Bilton 2007). For the creative sector, a consequence of this "disproportionate emphasis by policy makers on the *economic* success of the creative industries" (Bilton 2007), is that research and debate around impact has largely focused on the economic (BOP Consulting 2012a, Department for Culture Media and Sport 2013, Fleming and Erskine 2011, Myerscough 1988) rather than more holistic approaches. Hewison further argues that during this period "the ideology of the market had so thoroughly penetrated public discourse that the sole purpose of government appeared to be economic advantage: the only measure of government success was growth" (2014: 132–3).

Beyond the debates that seek to explain the definitions of creative industries and its antecedents, which are well covered elsewhere (Bakhshi and Cunningham 2016, Cunningham 2002, Flew 2011, Hartley et al. 2013, Hesmondhalgh 2007, Hewison 2014, O'Connor 2010), there have been various approaches to grouping and explaining how the industries interact and function, and to what end. The creative industries concept has been deployed for a variety of instrumental purposes including place-making and economic growth as well as more intrinsic social and cultural impacts (Belfiore and Bennett 2008). These are explored briefly here to provide some of the context for the investigation and findings that follow. Interpretations of place have been used to explore and define the creative industries, most notably in Landry and Bianchini's (1995) work on creative cities, and to an extent, through Florida's work on the creative class, which explores the idea of clustering as well as productivity (Florida 2012). The idea of creative clusters has had a significant impact on both policy making and associated research and evaluation approaches (BOP Consulting 2013, Chaston 2008). The focus on clusters in the creative industries has also been used to support discussion around urban regeneration (Dovey and Pratt 2016, Lee 2014, Pratt 2003, 2008). There has been significant investigation of the creative cluster from policy perspectives (Flew 2010, Ibert et al. 2015) and from the point of view of knowledge creation and transfer (Bathelt et al. 2004, Florida 2012). In the creative context, a recent study found that creative

communities are often interconnected and that the diversity of these connections increases over time (Garcia et al. 2018). However, the policy support approaches that have grown from this perspective are frequently high-level and as seen above this risks overlooking the myriad micro-enterprises in the sector and their particular networks and driving values.

Mapping approaches have frequently been used to explore issues of categorization and workforce patterns across the creative industries (Bakhshi et al. 2013a, Higgs and Cunningham 2008), but also patterns of access to finance and support (Creative England 2014, De Voldere et al. 2013). These explorations have noted the bias towards London in public funding and support (Bakhshi et al. 2013a, Leriche and Daviet 2010, Stark et al. 2013) that has long been a feature of economic geography discourse (Martin 2015). Regional variation is another critical part of the creative industries picture that emerges from this perspective. In reviewing the regional variation in business profiles across the creative sector (Bakhshi et al. 2013a), research has concluded that policy interventions need to be specific to particular cultural and regional economies (Fleming and Erskine 2011, Jeffcutt 2004), and this has begun to be taken up by regional business support strategies in the case of some Local Economic Partnerships (LEPs) (KADA Research 2015, Shared Intelligence 2015, South East LEP 2015, Tom Fleming Creative Consultancy 2015). This further contributes to the differences in business populations, and indeed support, across and between regions.

Fleming and Erskine (Fleming and Erskine 2011) stress the importance of understanding the roots and location-specific drivers within a geographic area, and that without “examining and appreciating how ecologies of art and culture exist in local contexts” then policy and support approaches will continue to be top down, rather than meaningfully developed (2011: 45). This suggests a need for business support approaches and investment funding that responds to “the social, cultural and economic geographies that shape the behaviour of audiences and markets” (Fleming and Erskine 2011: 37). In exploring issues of place and the ‘meaning’ that this adds to the cultural product - and thus value - the authors suggest that “if contexts for artistic and creative

production (and consumption) vary, then so do the development and support needs" (2011: 39).

Research suggests that whilst creative industries have been shown to support growth in local economies, not all regions act the same way in terms of growth aspirations and activities, as well as having differences in business populations and the aspirations within them (Garcia et al. 2018). Nevertheless, in the five-year period between 2011 and 2016, many local economies saw significant growth in their creative business population, and in many cases this creative entrepreneurship growth was reportedly faster than that seen in other sectors (Garcia et al. 2018).

Economic significance

From an early stage, the 'creative industries' grouping is clearly underpinned by financial value considerations, with the sub-sectors placed "firmly within a robust economic agenda with few guidelines as to how exactly this was to be differentiated from more traditional cultural policy" (O'Connor 2007: 45). The economic framing of this rise of the creative industries has also been described as 'mainstreaming' the focus of creative industries policy (Flew 2011). Table 1.1 below demonstrates the economic significance of the sector and its growth.

Creative Industries contributions	2013	2015
Gross Value Added (£billion)	76.9	84.1
% of UK economy	5	5.2

Table 1.1: Creative Industries contributions to GVA, developed for this study from *(Department for Culture Media & Sport 2016, 2015)*

The creative industry's Gross Value Added (GVA) has grown by 5.8% each year since 1997, compared to 4.2% growth in the UK overall GVA (Department for Culture Media & Sport 2016) and reached £84 billion in 2015. The most recent economic estimates suggest that the wider creative economy (which counts creative employment

outside the creative industries as well as all employment within the creative industries) made a £133.3billion contribution to the GVA of the UK in the same period (op. cit). This has led to criticism that culture has become economised, with the development of an economic frame for arts and culture activity being seen as an attempt to give the cultural sector a 'seat at the table' (Flew 2011) in wider policy and economic discussions. This is argued to have had the effect of subsuming culture into the economy to the extent that other non-financial values and outcomes have been minimised (Carnwath and Brown 2014, Hewison 2014, Holden and Balt 2012). These discussions have been characterised by the 'cultural exceptionalism' perspective, which observes and explores the ways in which the cultural and creative disciplines behave differently to other economic sectors (Pratt 2003).

Partly as a result of the sector growth and significance outlined above, UK creative industries policy has predominantly focused on productivity and the continued growth of the sector (Creative Scotland 2016, Brighton et al. 2016, Fleming and Erskine 2011, Technology Strategy Board 2013). This is potentially problematic because the creative industries are also characterised by the concept and practice of symbolic value, in which "the economic value of […] goods is dependent on subjective interpretations of meaning" (Bilton 2007). Broader debates around symbolic values and instrumental impacts of culture and creativity are not new and have also frequently been linked to the development of social and economic goals (Belfiore and Bennett 2008). The support and policy initiatives focused on the sector have thus been framed by the dominant understandings above around economic significance. This economic focus extends to both metrics and measurement, and to the range of creative industry sub-sector areas which have formed the focus of much debate as to their creative intensity (Hesmondhalgh 2007, Throsby 2008). For example, Government policy explicitly linked the creative industries to the knowledge economy through the Creative Economy Programme, which was intended to "create the best framework to support the innovation, growth and productivity of the creative industries" (Department for Culture Media & Sport 2006: 2). This perspective has merely been reinforced through the current dominant high-growth and scale up perspective: the economic focus has led to a range of policy and practical support focused on high-growth businesses that contribute to improved productivity

(Austrian Institute for SME Research and VVA Europe 2016, Creative Industries Council 2014, Easton and Cauldwell-French 2017, Ernst & Young 2014, HM Government 2018). However, despite this policy drive, there has not been a corresponding increase in high-growth creative industries businesses (Garcia et al. 2018).

Roodhouse argues that the very existence of creative industries policy "inadvertently encouraged an emerging reconceptualization of the cultural industries, particularly arts practice: culture as business" (2011: 25). This fed back in to policy and business support initiatives targeted to the sector, the majority of which are focused on high-growth and innovation as noted above. An entrepreneurial and economic focus on the creative industries in the UK built upon the emerging discussions of business and management approaches within the sector (Björkegren 1996) and the recognition of the importance of 'creativity' that was reverberating into wider management discourse (Bilton 2007, Cox 2005, Lash and Urry 1994). Jeffcutt (2004) expands their point, noting that the corollary to culture being commodified was that goods and services in other sectors became 'aestheticised', and that this led to an increased focus on creativity as a commodity and as a business practice (Cox 2005, Lampel and Germain 2016, Schiuma 2011). This has also contributed to the growth-focused policy and support approaches that target the creative sector, despite this approach being inconsistent with the business drivers and pathways for the micro-scale organisations that are typical within it, as discussed further below.

Little business = big business

Recent work exploring the industrial structure of the creative sector suggests that 94% of companies in the creative industries are micro-enterprises[2] – a significantly higher proportion than other sectors (Garcia et al. 2018) – and that in fact 89% of businesses in the sector are at the smaller end of the micro-enterprise scale, employing fewer than five people (Easton and Cauldwell-French 2017). It is important to note that the micro-enterprise definition does not include freelancers and sole traders who are also significant

[2] The micro-enterprise as a unit of analysis and comparison captures any registered business entity with fewer than 10 employees and an annual turnover below €2million (Middlesex University et al. 2016).

to the sector (Easton and Cauldwell-French 2017), but whose activity is captured elsewhere in government statistical approaches.

The significance of micro-enterprises to the creative sector is supported by data from the Office for National Statistics, as summarised in Table 1.2 below, which shows that across all of the creative industries standard industrial classification (SIC) codes, except museums, galleries and libraries, over 90% of the business population within each sub-sector is made up of micro-enterprises and that in all cases, businesses with fewer than 5 employees make up the majority. Entrepreneurs and micro-enterprises have long been a particularly strong characteristic of the creative industries (Easton and Cauldwell-French 2017, Garcia et al. 2018, Jeffcutt 2004, Pratt and Hutton 2013). They are also a critical and significant proportion of the UK business landscape as shown in Table 1.2 (Middlesex University et al. 2016). The economic productivity of the creative industries is likely to be limited by this industry profile (Garcia et al. 2018), despite the policy significance and the focus of interventions.

	Architecture	Publishing	IT, software and computer	Crafts	Design	Advertising & marketing	Museums, galleries & libraries	Film, TV, video, radio and photography	Music, performing & visual arts	**UK whole business population**
0-4 employees	**83%**	**92%**	**92%**	**80%**	**89%**	**83%**	**57%**	**91%**	**91%**	**78%**
5-9 employees	**9%**	**4%**	**3%**	**13%**	**6%**	**8%**	**14%**	**5%**	**5%**	**13%**
Micro-enterprises	***92%***	***96%***	***95%***	***93%***	***95%***	***91%***	***71%***	***96%***	***96%***	***91%***
10-19 employees	5%	2%	2%	5%	3%	5%	11%	2%	2%	**3%**
20-49 employees	2%	1%	1%	2%	1%	3%	10%	1%	1%	**1%**
50-99 employees	1%	0%	0%	0%	0%	1%	3%	0%	0%	**0%**
100-249 employees	0%	0%	0%	0%	0%	0%	2%	0%	0%	**0%**
250+ employees	0%	0%	0%	0%	0%	0%	3%	0%	0%	**0%**
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	**100%**

Table 1.2: Percentages of UK businesses by size and by creative industries SIC code, developed for this study from *(Office for National Statistics 2016)*

This is important to recognise in understanding the nature, potential growth dynamic and productivity of the 'creative industries', for micro-enterprises have often been omitted from further data gathering and statistical approaches on the economy by virtue of the difficulty in collecting data on small and often transient businesses (Garcia et al. 2018, Jeffcutt 2004). Whilst this has subsequently been reflected in common understandings of the creative economy, including in recent policy approaches (HM Government 2018), it is only with more recent work by the likes of the Creative Industries Federation (Easton and Cauldwell-French 2017), the Crafts Council (Crafts Council 2014) and Creative United (Henry et al. 2017) that the fuller extent of sectoral diversity has been reflected. Much of the debate and analysis remains policy focused or high-level, not least because, as Holden has previously noted, "the large institutions of government find it difficult to engage with organisations that are micro, fluid, disaggregated", such as those seen across creative industries (2007: 2).

A conflict is generated, typically in small and micro-scale business, by the need to strike a balance between commercial and artistic approaches, which is described by Björkegren as "the conduct of business [being] subject to a commercial and a cultural / artistic rationality" (1996: 3), echoing Handy's discussion of paradox in modern organisations (1994). The conflicts that emerge when viewing the sector from an entrepreneurial perspective have particular impacts for support initiatives and policy priorities (Department for Culture Media & Sport 2006, Leadbeater and Oakley 1999, Lounsbury and Glynn 2001, Roberts 2013, Shaw et al. 2012). For example, despite a research focus suggesting that networks of collaboration are now the major focus for "competitive positioning in the creative industries" (Bilton 2017: 189), the targets for policy intervention are frequently individual businesses. Business support provision to the creative sector has focused on developing investment and growth readiness as well as programmes supporting intellectual property exploitation, diversity and increased engagement with the arts (Arts Council England 2018). The UK has, over time, offered a

wide range of tax breaks, production incentives and financial support across the creative industries, as well as continuing an historic trend in public subsidy and grant funding (Easton 2017, Neelands et al. 2015). Whilst some of this has been evaluated and reviewed, a large proportion of this support remains unproven in terms of efficiency and effectiveness, which is not restricted to the creative industries (Enterprise Research Centre 2015, Henry et al. 2017). In the policy and support landscape shaped by this entrepreneurial perspective, there is still limited specific consideration of the way in which micro-enterprises define and negotiate their driving values and construct their value generation or business model (Holden 2007, 2015).

In summary, the creative industries are characterised by their growing economic significance and this has affected the focus of policy discussion and support. Statistics on the sector show that there is a predominance of micro-enterprises which are not well represented in support and policy approaches. There is an ongoing debate over the motivators and drivers of creative businesses which incorporates the conflict seen in the focus of much business support. These characterisations and the story around them are particular to a political economy approach, whereby 'creative industries' policy seeks to support the economic impact of the sector through a support framework focused on growth. Whilst this political economy approach has become the dominant framing of the creative industries since their inception in 1997, it has existed in parallel with a cultural studies perspective that discusses public and cultural value outside of, or in addition to, the financial. In reality, Pratt's (2003) co-constitutive perspective, wherein a mixture of the two approaches act on each other, is closer to the lived and observed 'reality'. This has most recently been captured in the emergence of the term ecosystem, which is discussed below.

b) The emergence of ecosystem as a lens on the sector

'The arts' have very rarely, if ever, been debated as an 'industry' or an 'economy', instead being more usually discussed as a sector, with use of the term 'ecology' now becoming more widespread. This contemporary term of 'arts ecology' describes a system of organisations "driven by intrinsic arts and cultural activities; expressive of a social

relationship between producers and audiences; strongly linked to public investment and not-for-profit activities" (Fleming and Erskine 2011). Most recently, in a report commissioned as part of the Arts and Humanities Research Council's work on the theme of cultural value, Holden traces the use of the term, noting that some of its earliest appearances were in separate, but virtually simultaneous, sources in the UK and the US in 2004 (Holden 2015). Holden also notes that:

> *Culture is often discussed as an economy, but it is better to see it as an ecology, because this viewpoint offers a richer and more complete understanding of the subject. Seeing culture as an ecology is congruent with cultural value approaches that take into account a wide range of non-monetary values.*
>
> (Holden 2015: 3)

In economic terms, the arts ecology (or publicly funded elements of culture) is often seen as the research and development base for the creative economy (Fleming and Erskine 2011). The economic and growth-focused policy perspective that developed led to the use of the term 'creative economy', which Florida (2012) suggests was first used in 2000 before becoming the eponymous focus of Howkin's (2001) work exploring the copyright industries. At a national level, these terms have developed very specific definitions and approaches, as set out in the latest (and last) creative industries economic estimates produced for Government, which sets out the definitions and approaches of both terms used in the statistical release:

> *"The Creative Economy, which includes the contribution of those who are in creative occupations outside the creative industries as well as all those employed in the Creative Industries.*
>
> *The Creative Industries, a subset of the Creative Economy which includes only those working in the Creative Industries themselves (and who may either be in creative occupations or in other roles e.g. finance)."*
>
> (Department for Culture Media & Sport 2016: 4)

These approaches are driven by the metrics of employment and economics and whilst recognising creativity as the core, take a different approach to the arts and cultural ecology groupings that cover networks, non-financial value creation and artistic activities. This underlines the point that there are multiple narratives available in the 'story' of the creative industries, two of which (economic value driven by creativity, and cultural value driven by creativity) are set out here. In relation to the arts ecology described above, the creative economy has also been defined as "driven as much by commercial as artistic and cultural factors; expressive of an economic and social transaction between producers and markets; operating in a mixed economy of different types of private investment" (Fleming and Erskine 2011). Despite this, the argument that the economic perspective minimises the non-financial values of culture has been criticised, with Pratt and Jeffcutt noting that the approaches are co-constitutive (Pratt and Jeffcut 2009). This co-constitutive approach provides a third option for constructing the 'story' of the creative sector in which, as Garnham (2005) has suggested, the concepts can work together, but 'reader' perspectives will affect the ways in which investigations take place and conclusions are drawn, particularly in a policy context.

In comparison to this narrative framed predominantly by economic power, the creative economy has also gained greater visibility and significance around a cultural value perspective (Bodirsky 2011, Boix et al. 2015, Fleming 2015, KEA 2015, Unctad 2010). UNESCO has developed a discrete strand of work and funding on the Creative Economy which holds much more strongly to this cultural underpinning. At this European level the 'creative economy' has been labelled a "powerful transformative force" (Isar 2013: 15) that is considered to spearhead an engagement with culture and work toward sustainable development. This perspective offers a range of opportunities to investigate cultural engagement, touching on environmental, heritage and creative aspects, but these considerations are regrettably outwith the immediate scope of this study.

The arts ecology and creative economy discussions referenced above, and the perceived friction between the two in terms of drivers and motivations, are more recent steps in a journey toward the use of the term 'ecosystem' in the context of the creative industries. The first use of 'ecosystem' in the creative industries appeared in a discussion

of knowledge relationships and transactions in the Northern Irish creative economy (Jeffcutt 2004). This discussion covered many of the background points to this study, noting the prevalence of creative freelancers and micro-enterprises, the "distinct lack of detailed and in-depth strategic knowledge about the cultural economy (sic) in the United Kingdom" (Jeffcutt 2004: 72) and the way in which the creative industries in the study did not operate within the sub-sector areas set out by DCMS (Jeffcutt 2004). Although the term was picked up subsequently in Australian (Australian Government 2018), European (Bakalli 2014), and United States contexts (Gollmitzer and Murray 2008, Markusen et al. 2011) there has been no in-depth investigation of the creative ecosystem concept in the UK to date.

Even in this relatively brief exposition, it is clear that there are several lenses through which to view the sector, each having their own significance and focus and leading to the selection of particular terminology. The creative industries framings discussed above outline where and how different perspectives and ways of viewing the sector and its businesses have developed, and the consequent impact on policy understandings and support initiatives. Various ecological metaphors have developed as the next stage of this approach to understanding the business and operational aspects of the industry as well as the wider organisational features of the sector. The ecosystem approach in this context stems from broader economic system understandings and has become popular as a means of expressing the breadth of entrepreneurial systems such as those where micro-enterprises are dominant.

c) The potential offered by an ecosystem perspective

The organisational and production characteristics of the sector have been outlined above, as well as the difficulties in conceptualising and supporting the breadth of organisations and value drivers in such a diverse field. The ecosystem term appears to bridge these positions, and has most recently been seen in debates on cultural value(s) to reflect the following approach:

> *There is a dynamic flow and exchange between different parts of the Cultural and Creative Industries which is vital to their future success. We have adopted the term Cultural and Creative Industry Ecosystem to capture and encourage*

> *this reality. The sum is greater than the parts and each part makes its contribution to the whole.*
>
> (Neelands et al. 2015: 13)

The creative ecosystem approach thus offers the potential to capture a much broader view of value that includes the economic, but also considers social and cultural aspects as significant, rather than incidental (Markusen et al. 2008, Holden 2015, Neelands et al. 2015). This is linked to the policy and support environment by Jeffcutt (2004), whose approach to ecosystem attempts to provide a way of considering the complexity of the creative and cultural environment. Jeffcutt suggests that due to the level of integration and interconnections in this sector, "any development strategy needed to be both generic and integrated rather than piecemeal – in other words, it needed to be *ecological*" (Jeffcutt 2004: 78). In the UK this approach to terminology was further refined by the Warwick Commission (Neelands et al. 2015) which drew together ecology and economy perspectives, alongside education, policy and social, cultural and material factors in the "dynamic flow and exchange" (2015: 13) referenced above. This suggests that firstly there are component parts of the creative ecosystem, and also that there are key relationships between these components.

The ecosystem approach offers the possibility of addressing some of the gaps identified above, namely the representation of micro-enterprises and the recognition of their particular values beyond the financial and commercial. This also offers the opportunity to better understand what Lash and Urry describe as the "rich nexus of markets linking small firms" (Lash and Urry 1994: 114) that is characteristic of the cultural and creative sector. The 'rich nexus' approach also offers the opportunity to respond to the observation that, in seeking to understand and support the sector, "rather than simply listing the businesses which comprise the local creative industries, it might be more useful […] to explore and document the systems within which such firms operate, in terms of facilities, resources and connections with the informal cultural sector" (Bilton 2007). However, Leadbeater and Oakley identified a challenge for policy makers in that they "lack the knowledge, time and tools to help develop a cluster of hundreds of independent

micro-businesses" (1999: 18). This observation was made almost twenty years ago, and as shown above there is still relevance in the question of how policy can better understand micro-scale businesses in order to adequately support them. The emerging ecosystem discussion – in the cultural and creative context – seems to offer an opportunity to do that. However, to date, this concept has not been operationalised in relation to known data on the creative sector. The creative ecosystem is, at present, a metaphor, and there is scope to explore the possibilities of applying the concept at a more practical level in pursuit of a better understanding of the sector. This introduces the research problem and question that this study seeks to address.

d) Defining the research problem

This introduction has established that micro-enterprises are a significant proportion of this economically significant sector, but that they are under-represented in industry statistics. This suggests that their particular needs and perspectives are not understood or represented. A further implication here is that current policy and support approaches do not take into account the goals and driving values of this significant proportion of the creative industries. This is underlined by the ways in which this sector has been framed for discussion, and these framings have led to particular approaches to investigation. The introduction has also traced an ecological turn in terminology of and around the sector, which takes a different perspective on value, and offers the potential to address some of the issues identified above. This leads to the research question addressed by this thesis.

The research question

Is the theoretical construct of 'ecosystem' useful for understanding creative industry micro-enterprises in order to better support them through policy and other interventions?

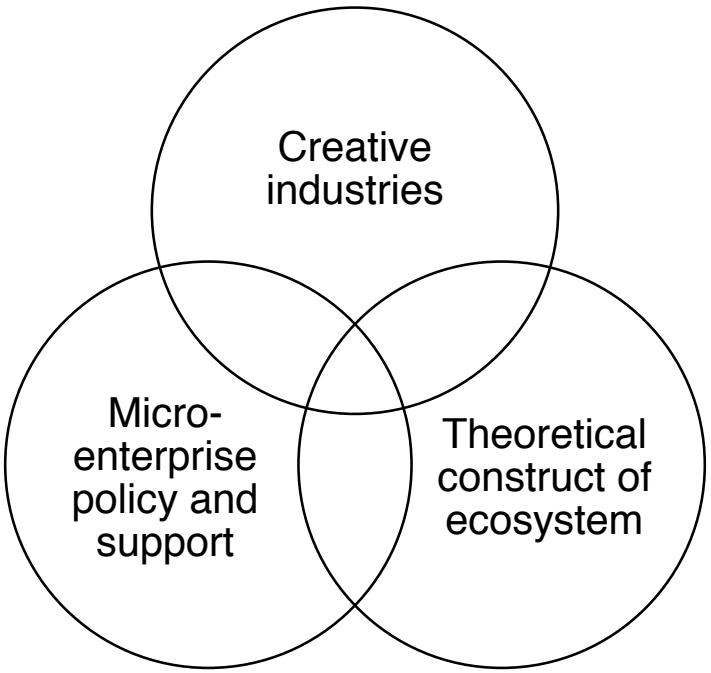

FIGURE 1.1: LOCATING THE FOCUS AND KEY TERMS OF THE RESEARCH QUESTION

The research approach explores existing ecosystem frameworks and their applicability to the creative sector – particularly the micro-enterprises within it. To support this aim, the study has the following objectives:

1. To test the applicability and usefulness of 'ecosystem' approaches to the landscape of creative business in the UK;
2. To assess the extent to which creative micro-enterprises are better understood through an ecosystem lens; and
3. To identify the implications for creative industries policy and support arising from the ecosystem perspective.

Essentially, the study seeks to map empirical understandings of 'the creative ecosystem', including the place of creative micro-enterprise businesses within these

maps to learn about both 'the ecosystem' and 'creative business journeys'. This is undertaken through three empirical mappings of:

a. A national secondary data-driven understanding of the ecosystem,
b. Stakeholder understandings of ecosystem, and
c. Micro-enterprises and their understandings of their ecosystems;

The study moves from ecosystem *perspective* to ecosystem *investigative approach*, and this allows a contribution to both theoretical development and policy understanding.

Key terms, definitions and contributions

This study is focused on the creative industries in the UK, which have been variously defined and explored to date, both as a field of academic interest and as an economic sector. The use of the term 'ecosystem' begins with the position outlined by Acs et al. (2017) which considers the system of interactions and interconnections within a given environment. By adopting the position that the ecosystem approach can apply to a business context, the study moves away from natural sciences definitions and instead draws on prior approaches that consider the ecosystem as a means to explore economic systems, especially and most recently entrepreneurship (Mack and Mayer 2015, Spigel 2015).

The study explores the theoretical constructs of 'ecosystem' as developed in business and entrepreneurship literature, including how it has contributed to the discussion of the ecosystem as a means of understanding the modern economy (Barker and Henry 2016, Roodhouse 2011). The study also advances the academic discussion of these topics and offers a contextual application of the ecosystem concept that is gathering traction in academic and policy discourse. The ecosystem construct is a comparatively new device, and there are problems in coming to this for the first time because there are a number of theorists approaching the concept from different – if potentially equally valid – angles, with what seem at present to be possibly inconsistent explanations and mapping methods. There are already a number of models and approaches to mapping an ecosystem, some place-based or regionally focused

(Anggraeni et al. 2007, Bruns et al. 2017, Gong and Hassink 2016, Miller and Acs 2017), and some exploring the ecosystem as process (Auerswald and Dani 2017, Miller and Acs 2017, Spigel and Harrison 2017). This investigation also works toward a richer qualitative understanding of *sector-specific* approaches to the ecosystem construct. This thesis therefore adds to the growing body of evidence on the application of the ecosystem concept, seeking to move toward a shared approach.

A contribution is also made to the current field of creative industries entrepreneurship, drawing on entrepreneurship and innovation literatures as well as cultural and creative industries policy. The outcomes of this investigation form a test of the ecosystem mapping approach, and in so doing, offer an original contribution to knowledge by reflecting on the specific paths and features of cultural and creative micro-enterprise ecosystems. Through the chosen methods, the study also offers a tool with which to reflect on existing policy and support approaches.

The structure of the thesis

This introductory chapter establishes the topic of the thesis. In the context of the creative industries as a politically and economically attractive growth sector, there has been limited consideration of the diversity of organisation types that make up the industries, and more particularly their driving values. Additionally there have been a number of approaches to framing the sector and its constituent parts, each of which reflect particular value-driven approaches. The possibility of a further 'ecosystem' framing emerges from a discussion of narratives of the sector, and particularly the relationship between 'arts ecology' and 'creative economy'. The final section of this introduction defines the research problem and question, and the aims and objectives of the study, which seek to develop a sector-specific investigation of key ecosystem approaches.

Chapter two explores the background to and development of the increasing use of the term ecosystem in business and entrepreneurial contexts. This discussion sets out the dominant approaches to ecosystem in business and enterprise literature, which form the theoretical framework for this investigation. The chapter goes on to identify a number of conceptual and metaphorical approaches to conceptualising and capturing the value

of the creative industries. An 'ecology' based approach to the cultural sector is then discussed in more detail as a framework to be taken forward in the study.

Chapter three then sets out how the selected 'ecosystem' frameworks are translated into a methodological approach for the study, and covers the reflexive approach taken to develop a multi-stage research design. The study design features a number of methods that challenge and explore different facets of the ecosystem concept and are designed to complement and triangulate each other. The use of multiple sources of data is designed to contribute to the internal validity of the work. The approaches to data collection and analysis are set out, covering the three stages of investigation of the ecosystem concept: a 'top-down' secondary data-driven stage; a stakeholder stage; and a 'bottom-up' stage focused on the business journey (see Figure 1.2). The process for, and justification of, selection of stakeholder interviewees and case study businesses is also set out in this section.

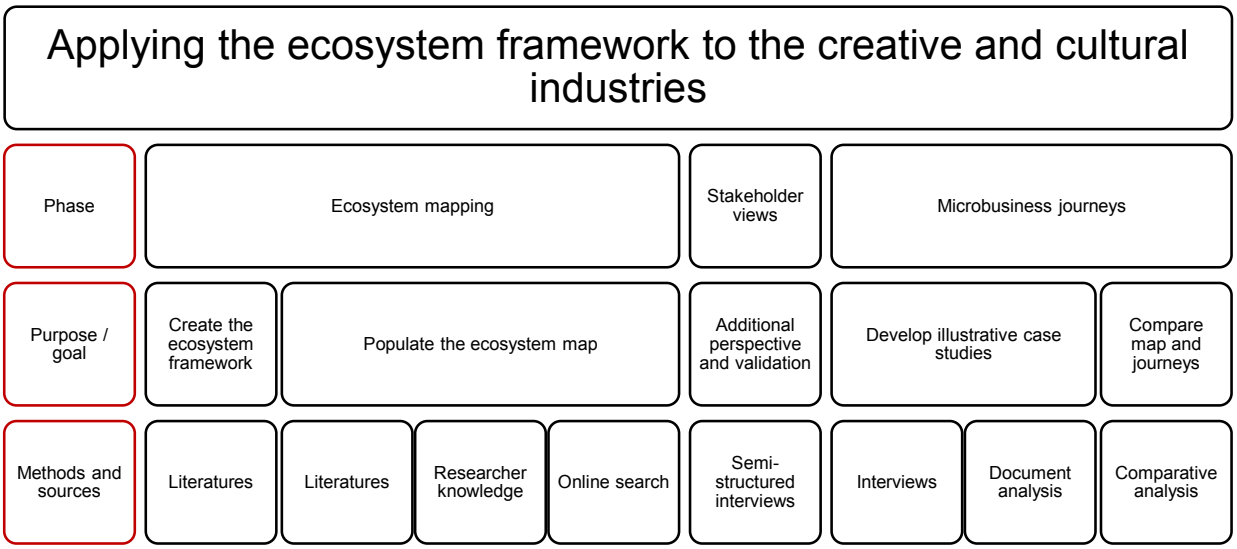

FIGURE 1.2: PLANNING MULTI-LAYERED METHODS TO EXPLORE THE USEFULNESS OF ECOSYSTEM FRAMEWORKS FOR UNDERSTANDING THE CREATIVE AND CULTURAL INDUSTRIES

On the creative ecosystem: chapter 1

Chapter four presents the first of the findings discussions based upon the secondary data-driven mapping of the creative and cultural ecosystem. The study identifies a particular perspective on the creative and cultural ecosystem from a 'top-down' perspective. Using literature and existing data sources, the creative and cultural ecosystem is mapped using the theoretical framework developed through the literature review. The findings here suggest that an ecosystem lens is complex to apply and captures a wide range of influencing factors. Additionally the chapter shows that the various emerging ecological and ecosystem perspectives do not coalesce to form a meta-ecosystem narrative.

Chapter five compares this perspective on the ecosystem with an alternative lens on the sector using sector and government statistics and research. This chapter demonstrates that the ecosystem approach begins to offer a broader lens on the sector than economically framed statistical approaches, and begins to hint at a conflict where sector knowledge and ecosystems approaches are concerned.

Chapter six adds a further stakeholder perspective on the ecosystem construct, developed through semi-structured interviews. This chapter also offers an element of validation of the previous secondary data mapping from the perspective of sector stakeholders. In this more contextual exploration of ecosystem, the existence of multiple narratives around the sector become clear, which connects to the 'sector knowledge' conflict highlighted above.

In chapter seven, the thesis moves on to cover the perspectives of the creative and cultural ecosystem from the position of the creative micro-enterprise. The methods used here are built around a case study approach focused on creative and cultural micro-enterprises using in-depth interviews and document analysis. Six case studies are set out, each presenting a business journey narrative and micro-enterprise perspective on their own ecosystem. From this perspective there are also multiple constructions of ecosystem, and a range of implications for better understanding and supporting this business profile.

Chapter eight returns to the research question to debate the usefulness of the ecosystem approach in this sector-specific context. It reflects on and compares the various ecosystem maps that have been created to draw out theoretical reflections and developments. In addition, it sets the ecosystem findings in the context of the current policy and support environment described in this introduction to better understand how to support creative and cultural micro-enterprise business journeys.

2) Eco -system or -ology? And does it matter?

> *"care must be taken when applying value chain and ecology theoretical frameworks as a means of understanding the creative industries generally when, for example, we cannot yet quantify sculpture or sculpting or reach a common understanding of what graphic design represents"*
>
> (Roodhouse 2011: 25)

The chapter begins by stepping back from the creative industries context to set out the difference between ecology and ecosystem – two terms often used interchangeably in literatures on business, entrepreneurship and the cultural sector. The aim here is to position emerging thinking about creative and cultural ecosystems in the context of a broader understanding drawn from literatures, and to develop a framework which will be applied to creative industry data in the empirical stage of this study. This chapter seeks to understand the development and use of 'ecosystem' as an industrial term, and how this might differ from existing approaches to understanding an industry sector. Having set this definitional context, the chapter identifies and discusses two of the major business and entrepreneurial ecosystem frameworks that are operationalised in this study. Building upon the journey to the creative and cultural ecosystem set out in the previous chapter, this chapter also discusses in more detail some of the ecological approaches that have been developed in the cultural and creative context. This discussion includes consideration of what an ecosystem approach could offer beyond existing attempts to group and organise creative industry and production, and sets out the third framework that is used in the study, which emerges from a specifically cultural context.

a) The origin of terms

The wider context for this discussion is the field of economics, described as the study of the production, consumption and distribution of goods and services. This aligns with the economic perspective discussed above that has shaped many creative sector support approaches to date. This perspective can be seen in discussions of the sector as the 'creative economy' (Howkins 2001) which is centred on the exploitation of intellectual property, and also in more detailed work on cultural economics (Bakhshi and Throsby 2010, Throsby 2008). Whilst the latter approaches do take a practical

and operational approach, they are distinctly focused on the calculation of economic value, and this study seeks to use a wider approach to value as seen in the introduction to the thesis. Therefore, whilst cultural economics approaches provide good contextual background underpinning the political economy perspective, they are not taken forward and applied in this study. The aim of this section is to introduce the key uses of ecological terminology in understanding a modern sector or production system, particularly those approaches that take an interest in the creative industries. The terms eco**system** and eco**logy** have their origins in the natural sciences, but the terms are increasingly being used - almost interchangeably - in business, cultural policy and economic cluster debates (Gollmitzer and Murray 2008, Gong and Hassink 2016, Hearn et al. 2007, Holden 2015, Mack and Mayer 2015, Markusen et al. 2011, Moore 1996, Spigel 2015). Table 2.1 below introduces some significant uses of the terms in business and policy debate, particularly where this has relevance to the creative sector, and outlines the differences between eco**system** and eco**logy** as they will be understood in this study.

Term	Definition	Usage	Author	Focus / intention
Ecosystem *Whole concept made of several parts or members*	The **detail** of a particular system within ecology	Business ecosystem	Moore 1996	Competitive advantage
		Entrepreneurial ecosystem	Isenberg 2011	Regional innovation and productivity
		Entrepreneurial ecosystem	Drexler et al. 2014	Global innovation system
		Creative ecosystem	Jeffcutt 2004	Regional map of creative businesses
			Bakalli 2014	Economic development
		Cultural and creative ecosystem	Neelands et al. 2015a	Education and skills / holistic
Ecology *Knowledge and understanding (from 'logos')*	The **study** of the relationship of living things to their environments	Value-creating ecology	Hearn and Pace 2006 Hearn et al. 2007	Complex value chains
		Cultural ecology	Markusen 2008	The arts and cultural organisations in a region
			Holden 2015	Fulfilment of roles that maintain cultural balance
		Project ecologies	Grabher 2004	Networks and temporary organisation structures
		Arts ecology	Fleming and Erskine 2011	Skills base for creative economy

Table 2.1: -System or -ology? Identified eco-approaches relevant to the creative sector, developed for this study.

Etymologically, the focus of the eco**system** is narrower than that of ecology, exploring “the interaction of living organisms with their physical environment” (O’Connor et al. 2018: 3) in a given system. In the business context, the term has been used both metaphorically and more operationally to categorise elements that affect entrepreneurial and innovation-led productivity and growth. Anggraeni et al. (2007) describe two approaches to the term in business research: “the metaphorical approach, which uses natural ecosystems as a metaphor for understanding business networks, and the reality-based approach which regards business ecosystems as a new organisational form” (2007: 2). The table above identifies two prominent framework approaches in the work of Moore (1996) and Isenberg (2011), which extend beyond metaphor and create an operational framework, but this could not unequivocally be described as a new organisational form, suggesting that there may be more of a spectrum. The two approaches have been further discussed, adapted and developed, particularly in the entrepreneurial context (Drexler et al. 2014, Mack and Mayer 2015, Spigel 2015), and are discussed below with specific reference to the components of each framework.

Ecosystem has also been used variously in a cultural and creative context, as set out in Table 2.1, although to date, there has been no attempt to define the component parts of a creative ecosystem as seen in business and entrepreneurial approaches. However, these contextual approaches to ecosystem are included in the discussion in this chapter because the rationale for their use is important – Jeffcutt (2004) chose the term to capture the web of knowledge relationships and transactions that were seen as important in his regional study of creative processes. The creative ecosystem has been considered in a European context (Bakalli 2014) and more specifically in relation to the UK (Neelands et al. 2015) and the key elements of these metaphorical debates are considered here.

‘Ecology’, more traditionally defined as the study of ecosystems, has been used to characterise value creating systems (Hearn and Pace 2006, Hearn et al. 2007) and as a way of defining groups of related organisations (Markusen et al. 2008, 2011), networked ways of working (Grabher 2004) and roles in the cultural sector (Holden 2015). Work on the ‘arts ecology’ has also been seen in parallel with creative economy approaches as

discussed above (Fleming and Erskine 2011). On further examination, some of these approaches appear to be discussing ecosystem (the detail of the piece) rather than the wider field itself, despite using 'ecology' as their term of choice. Whilst this study does not propose to set strict boundaries on the use of language, this range of variety in terminology does suggest that existing terms are insufficient or unsatisfactory in some way. For this reason, the chapter includes a discussion of the additional terms used to group and discuss the creative and cultural sector and asks what 'ecosystem' does differently.

b) Ecosystem frameworks

Having established that there is an ecological turn in exploring and describing business, and that the terms 'ecology' and 'ecosystem' differ but are often used interchangeably, the next section of the chapter examines two specific approaches in more detail. These approaches are selected for two main reasons; firstly that they have been identified through literature searches as dominant in the discussions, and secondly that they each take operational or more 'reality-based' approaches which offer a framework that can be applied and tested.

Ecosystem as organisation strategy

The first ecosystem approach examined here is that of Moore (1996), who introduced the **business ecosystem** as a means of reconsidering organisational strategy, competition and evolution. In this model the fundamental purpose of the ecosystem - as an economic community - is to support financial value creation and thus competitive advantage (Moore 1996). Moore suggests the following definition of business ecosystem, building on an ecological approach:

> *An economic community supported by a foundation of interacting organizations and individuals – the organisms of the business world. This economic community produces goods and services of value to customers, who are themselves members of the ecosystem. The member organisms also include suppliers, lead producers, competitors, and other stakeholders.*

(Moore 1996: 26)

Within the economic framing previously noted, the ecosystem framework supports organisations to rethink their corporate strategy. The benefit of strategizing using such an ecosystem approach is to bring significant and original innovation to markets and customers, rather than mere process improvement (Moore 1996). Moore also outlines key stages in the development of the overall ecosystem itself, which supports the notion that the ecosystem is not a static concept, but a dynamic one (Gossain and Kandiah 1998, Hearn and Pace 2006, Hwang 2014). Beyond individual organisations' strategic advantage, the health of the overall system is also important to the survival and progress of the firms within it (Anggraeni et al. 2007, Moore 1996). In describing the elements that make up a business ecosystem, Moore places the core business at the centre of a broader sphere, as shown in Figure 2.1:

FIGURE 2.1: MOORE'S BUSINESS ECOSYSTEM, DEVELOPED FOR THIS STUDY FROM MOORE 1996

Moore identifies the range of organisation functions that make up the overall business ecosystem and the two spheres within this – the core business and the extended enterprise – based largely on the supply chain process and taking into account the wider legislative and competitive environment in which the core business operates. Within these spheres of operation, the component parts of Moore's ecosystem are described as functions (full definitions of which can be found in Appendix 3.2 as part of the methodological approach of this study). This vocabulary underlines that the elements within this ecosystem perform a role which takes place in relation to others in the ecosystem. The structure of this approach also requires a 'core' organisation placed at the centre, from whose perspective the ecosystem is viewed. Moore also discusses the existence of 'keystone' organisations within the business ecosystem, without whom the ecosystem as a whole would not perform optimally (1996). These keystones could be located within any of the functions of the system overall, and Moore offers no further discussion of how these types of organisation are to be identified.

In an operational sense, Moore suggests that organisations widen their strategic planning focus to take into account the wider range of actors and organisations that surround them (1996). For Moore, "business ecosystems are the embodiment of values – values of customers, suppliers and society and its agents – centered (*sic*) around economic activities and confirming to the laws of investment and return" (1996: 273). This builds upon Rothschild's earlier suggestion that the "capitalist economy can best be comprehended as a living ecosystem" (1990: xi) as both have information at their heart. Whilst both of these approaches are underpinned by economic concerns, Moore's framework does acknowledge wider approaches to value, which suggests that its application could be useful in the creative industries environment described above. Whilst not a specific application of Moore's framework, the earliest instance of a 'creative ecosystem' approach (Jeffcutt 2004) also focused on aspects of value creation, but viewed individual enterprises as occupying "different niches along [these] value circuits" instead of being at the centre of the ecosystem (Jeffcutt 2004: 77). Jeffcutt's use of the term shows the potential to apply this ecological understanding to a specific sector in order to understand the "mix of enterprises in an evolving configuration of value circuits" (2004: 78).

To date Moore's framework has not been applied to any industry sectors, perhaps because of the underpinning rationale that the concept of 'industry' had become outdated and did not acknowledge how businesses operate and interact across sector boundaries (KEA 2015, Lash and Urry 1994, Moore 1996). Moore and others argued that the term 'ecosystem' captures a more holistic view of the way in which businesses operate (Iansiti and Levien 2004, Moore 1996) although not necessarily the social and cultural contexts within which this takes place. The relevance or otherwise of 'industry' as a collective term is a useful takeaway from this model.

Ecosystem as blueprint for regional growth

Conceptually, the business ecosystem is useful for considering how organisations operate in their industrial or value chain context. However, the discussion tends toward a focus on larger corporations and their networks and value chains. There is criticism that entrepreneurs and smaller firms are not taken into account in the broader ecosystem debate (Drexler et al. 2014). This has been addressed in a subset of the entrepreneurship literature focused on ecosystems, which tends to include smaller businesses and their relationships and strategies. The most prominent approach to the entrepreneurial ecosystem is that of Isenberg (2011) which focused on innovation and productivity, particularly in a regional context. This is the second operational or 'reality-based' approach explored here.

As a strategy for stimulating regional productivity, Isenberg's approach does not attempt to consider wider values than the financial, which places it firmly within the economic perspective suggested above. Isenberg considers the entrepreneur as one "who is continually pursuing economic value through growth and as a result is always dissatisfied with the status quo" (2011: 2). This approach to innovation has parallels with creative business models and approaches (Bilton 2007). Whilst Isenberg's approach does not attempt to tackle the wider perspectives on value, this ecosystem model could offer another way of understanding how the creative sector interacts given its framing within the economic perspective. Isenberg's entrepreneurial ecosystem is made up of six domains within which organisations may be located, rather than identifying the function

of the particular organisation. In Isenberg's model all of the elements are visible if the entrepreneurial ecosystem – and entrepreneurship within it - is self-sustaining.

FIGURE 2.2: ISENBERG'S ENTREPRENEURIAL ECOSYSTEM, DEVELOPED FOR THIS STUDY FROM ISENBERG 2011

The six domains group together a range of aspects, whether organisations, policies or concepts. There is also an element of idiosyncrasy within the definitions, with public funding and government finance being categorised within the 'policy' domain rather than 'finance'. It is also possible that, from the perspective of the overall ecosystem, an organisation might span more than one domain– a non-governmental institution providing finance or education, for example.

There have been no attempts to date to apply this model to a sector or industry area, although the approach is popular in discussions of regional innovation systems. This aspect is useful when considering how the approach might help policy and support initiatives, particularly as Isenberg notes that "there is no policy silver bullet" (2011: 8)

and, furthermore, that support initiatives targeted toward a single ecosystem domain – described by Isenberg as 'piecemeal' - are unlikely to be productive. As with the argument above that all domains need to exist for an ecosystem to become self-sustaining, all domains need to be supported or an ecosystem will not flourish. To achieve this, Isenberg recommends the establishment of specific 'entrepreneurship enabler' organisations whose function is the generation, growth and sustainability of the ecosystem. Isenberg notes that these organisations must have a finite life-span, working toward the ecosystem becoming self-sustaining before they themselves exit, and does not specify whether such enablers should be considered within any particular domain.

Whilst this approach has not been applied to specific industry sectors, Isenberg's model has significant parallels in the later global entrepreneurial ecosystem described by the World Economic Forum, which defines the ecosystem as "a system of interrelated pillars that impact the speed and ability with which entrepreneurs can create and scale new ventures" (Drexler et al. 2014: 9). All of the pillars of Isenberg's approach described above feature in this global view, but the latter places a greater focus on the importance of universities and higher education as catalysts for entrepreneurial activity and includes this as a pillar in its own right. Additionally, where Isenberg considers education to fall within the domain of 'human capital', Drexler et al draw this out from their series of surveys as a separate pillar of their ecosystem approach. This notion of ecosystem has also been taken forward in entrepreneurship literatures, particularly with a focus on innovation and high-growth environments (Mack and Mayer 2015, Spigel 2015).

Comparing frameworks

Isenberg views the ecosystem from an external perspective rather than placing an individual organisation at the core. However, like Moore, Isenberg does not attempt to draw specific connections between these areas, highlighting instead the unique nature of each application of this system and that the elements are "idiosyncratic because they interact in very complex ways" (Isenberg 2011: 6). It is also important to recognise that any ecosystem map is also necessarily specific to the location, function and size of any organisation using this concept to rethink their strategy (Mason and Brown 2014). In each of these cases, the ecosystem metaphor is seen as useful *when placed in context*.

However, Iansiti and Levien (2004) suggest that attempts to define boundaries of an ecosystem are ultimately of little use, given the dynamic and contextual practicalities. Mack and Mayer (2015) point out that any attempt to map or otherwise document an innovation or high-growth ecosystem is necessarily retrospective and is thus focused on existing successful examples rather than the breadth of entrepreneurial or other ecosystem attempts (Mack and Mayer 2015). Learning from what has not worked may be equally as instructive (Bilton 2007), and equally, it could be instructive to the approach in a setting that does not exclusively focus on growth.

Both models outlined above represent useful guiding characteristics of a functioning ecosystem, but above and around these characteristics there is a value construct, and furthermore the ecosystem as a whole is an artificial and constructed concept. In the entrepreneurial ecosystem literature, as with the business ecosystem approach, the concept is both constructed and contextual. Context is vital in that all ecosystems have emerged from their own particular set of circumstances, both industry and location specific (Drexler et al. 2014, Mason and Brown 2014). Geographic location is often an important consideration as it both affects, and is affected by, the agglomeration of assets (Florida 2012, Mason and Brown 2014, Pratt and Jeffcut 2009, Scott 2006). Business ecosystems can exist at different conceptual scales (Iansiti and Levien 2004, Moore 1996), as well as containing businesses of different sizes, life stages and functions (Gossain and Kandiah 1998, Mason and Brown 2014). To date, there has been little reference to the issue of time in relation to ecosystem development, beyond the recognition that ecosystems are dynamic rather than static concepts (Hwang 2014).

Both Isenberg and Moore identify a requirement for certain organisations to act as catalysts or gatekeepers to the ecosystem, calling these ‘entrepreneurship enablers’ and ‘keystone’ organisations respectively. The motivating element of these catalysts differs slightly in each approach, and whilst Isenberg is clear that the entrepreneurship enabler role is deliberately created and has a finite lifespan, Moore’s approach to keystones is more organic and this aspect grows from developing corporate advantage. Further to this, much of the work exploring ecosystems is focused on high-growth sectors of industry as this has often offered rapid cycles of development and growth. High-growth firms are often

seen to create spillover effects that benefit both the local area and other firms located in this area (Mason and Brown 2014). This has parallels with co-opetition (Hearn and Pace 2006) or co-evolution (Moore 1996) and contributes to the ecosystem by building mutual interdependencies. Both Moore (1996) and Hearn and Pace (2006) highlight the importance of the interactions between the component parts of the system. These interactions may be between organisations and customers, suppliers or competitors, but their inclusion in the very definition of ecosystem underlines the importance of this relational aspect. Gossain and Kandiah (1998) further argue that the business ecosystem is driven by the connectivity between constituent parts. This connectivity has been enabled and enhanced by technology and the possibilities that this offers for real time interactions and shared data (Benkler 2006, Gossain and Kandiah 1998). This introduces the concept of *interdependencies* as a means of understanding the ecosystem as a whole. Focused largely on traded and untraded links between firms (Storper 1995), Boggs and Rantisi (2003) locate this business concept within a relational perspective on economic geography, noting that research into the connections between firms has produced new insight into the generation of economic value.

c) Ecological approaches to the cultural and creative sector

Having outlined the progression of thought on business ecosystems, this section now explores in more detail the growth in ecological approaches specific to the cultural and creative industries. As shown in Table 2.1, there have been a range of ecological approaches to understanding the creative industries, in terms of how they are structured and how work takes place within them. Whilst a variety of terms are used, all emphasise the fluid, inter-relational, micro-scale, cultural and economic value aspects of the creative sector's production and organisational approaches. This section sets out how ecological approaches have used the cultural and creative sector to illustrate their point (the creative industries being noted for presenting examples that are ahead of the curve in terms of business model innovation (Björkegren 1996, Hearn and Pace 2006, Lash and Urry 1994, Scott 2006) and then explores specific discussions of the *cultural and creative* ecology and ecosystem.

On the creative ecosystem: chapter 2

The ecosystem approaches discussed above typify a growing shift toward the ecological concept in business (Hearn and Pace 2006). Hearn and Pace stress the importance, for a business, of knowing the ecosystem in which they operate, and Moore's concept of 'co-evolution' "where for any company to really evolve its capabilities, others must evolve in support" (2006: 61). Whilst Hearn and Pace use 'ecology' rather than 'ecosystem', their component parts have clear parallels, and underpin the importance of value within the concept. Hearn and Pace's (2006) ecology perspective also expands the value creation process beyond the immediate organisation, and beyond the linear value chain approach. Their 'value-creating ecology' places the value chain at the centre of their approach, which, amongst other factors:

> *"encompasses the idea of an environment of factors that engender and create value without necessarily being part of the first order factors of productivity"*
>
> (Hearn and Pace 2006: 57)

Significantly for this study, the cultural and creative industries have frequently formed a site for other ecological and network-based investigations of industrial organisation, including Grabher's (2004) project ecologies. Grabher used creative industry sub-sector examples to illustrate the processes by which project networks – or ecologies – have become the dominant forms of organisation and production, such as through 'temporary project' formation characterised by knowledge or value creation based on a 'core' that is expanded and contracted rapidly with additional team members as required to deliver particular projects (Grabher 2004). More recently, Schlesinger et al. (2015) have argued that such vertically disintegrated and non-linear supply chains represent "the most characteristic way of organising contemporary creative work" (2015: 105). In this way they assert that the micro-enterprise has come to be seen as the characteristic organisational form of the creative industries (Schlesinger et al. 2015). This shift away from integrated supply chains and large firms was pre-empted by Lash and Urry (1994), who highlighted both the highly transactional nature of the creative industries, and the predominance of small firms or self-employed individuals.

On the creative ecosystem: chapter 2

As introduced briefly above, the terminology of arts ecology describes a system of organisations "driven by intrinsic arts and cultural activities; expressive of a social relationship between producers and audiences; strongly linked to public investment and not-for-profit activities" (Fleming and Erskine 2011). Whilst this description seems to recognise wider approaches to value, this definition of ecology is also clearly located within the economic perspective, as set out by Fleming and Erskine (2011) who, on behalf of the Arts Council, suggested that the arts ecology provided:

> *"the bedrock for (or is it lifeblood to?) a dynamic, growing and increasingly competitive creative economy, which in turn delivers value for the wider national interest"*
>
> (Fleming and Erskine 2011)

Holden reports that the Arts Council also later adopted the term cultural ecology, describing this as "the living, evolving network of artists, cultural organisations and venues co-operating in many fruitful partnerships – artistic, structural and financial" (Holden 2015: 6). The idea of a 'value-creating ecology' approach to capture the complexity and interconnectedness of creative industry value chains (Hearn et al. 2007) has also been used to explore the relationship between publicly funded arts / culture and the creative economy (Holden 2007). Hearn et al (2007) consider the operational aspects of their approach with reference to the critical importance of network theory, because "in a value creating ecology the constellation of firms are (sic) dynamic and value flow is multi-directional and works through clusters of networks" (Hearn et al. 2007: 421).

Exemplifying this perspective, Holden's work on cultural ecology offers a UK focused approach which discusses the changing and complex relationships between the three 'spheres' of publicly funded, commercial and homemade culture (2015). Holden does not seek to offer a definition by way of introduction, instead referencing Markusen's definition of the 'arts and cultural ecology' in California:

> *"the complex interdependencies that shape the demand for and production of arts and cultural offerings."*

(Markusen et al. 2011: 10)

Markusen's approach to documenting the Californian state ecology was comprehensive and multi-method, using data from state and national sources to set out the budgets, sub-sectors and impacts of non-profit making arts and cultural organisations. This was followed up by interviews to explore relationships and causal insights (Markusen et al. 2011). This approach deliberately focused on non-profit making organisations, which is useful as it begins to extend beyond economic value to consider the consumption and production of culture and the values inherent in this. Holden also stressed that the cultural ecology "cannot be understood without taking into account free labour and emotional rewards" (2015: 11). Holden's ecology of culture investigation also suggests that there is considerable variation across the sector because "despite their many interconnections, cultural sub-sectors operate in very different ways. Each artform has its own micro-ecologies." (2015: 5). Holden does not follow the same detailed and empirical approach as Markusen but explores the concept through interviews with stakeholders in the cultural sector, and generates perspectives on the concept of ecology from these discussions. By way of conclusion Holden proposed three visual models of the cultural ecology: cultural ecology as a cycle of regeneration (which charts a process); network diagrams (which require nodes in order to map connections); and cultural ecology as interacting roles (which categorises actors within the system).

The first of these approaches, cultural ecology as a cycle of regeneration, reflects the dynamic and cyclical nature of cultural and creative production. The model moves through five stages: creation, curation, collection, conservation, and revival (Holden 2015). The consumer or audience side of culture, deemed vital by Holden, is reflected in the 'collection' phase which is considered to incorporate audience engagement. Whilst this approach does categorise aspects of a cultural ecology, it documents the process rather than the structure of the system. For this reason it is not taken forward here. Holden also discusses a second possibility of using network diagrams to visualise the whole of the cultural ecology, but concludes that this is not a useful approach at this level "because the network connections would become so dense, so extensive, and so various in quality as to lose meaning". (Holden 2015: 27). This raises an important point about the need to

clarify the purpose of mapping the ecology (or ecosystem), which then allows decisions to be made about "where to draw the boundaries; the crossover between local and artform or sectoral networks; over-simplification; and capturing the quality of the network" (Holden 2015: 29). Holden's third approach, which sets out a model of cultural ecology roles, offers the potential to categorise and map out the entities within and across the creative ecosystem. These roles are set out in Figure 2.3 below, along with indicative examples of the types of individuals or organisations that populate them. Holden also points out that many individuals or organisations in the cultural ecology will fulfil more than one of these roles but will "tend to have a dominant activity" (2015: 29).

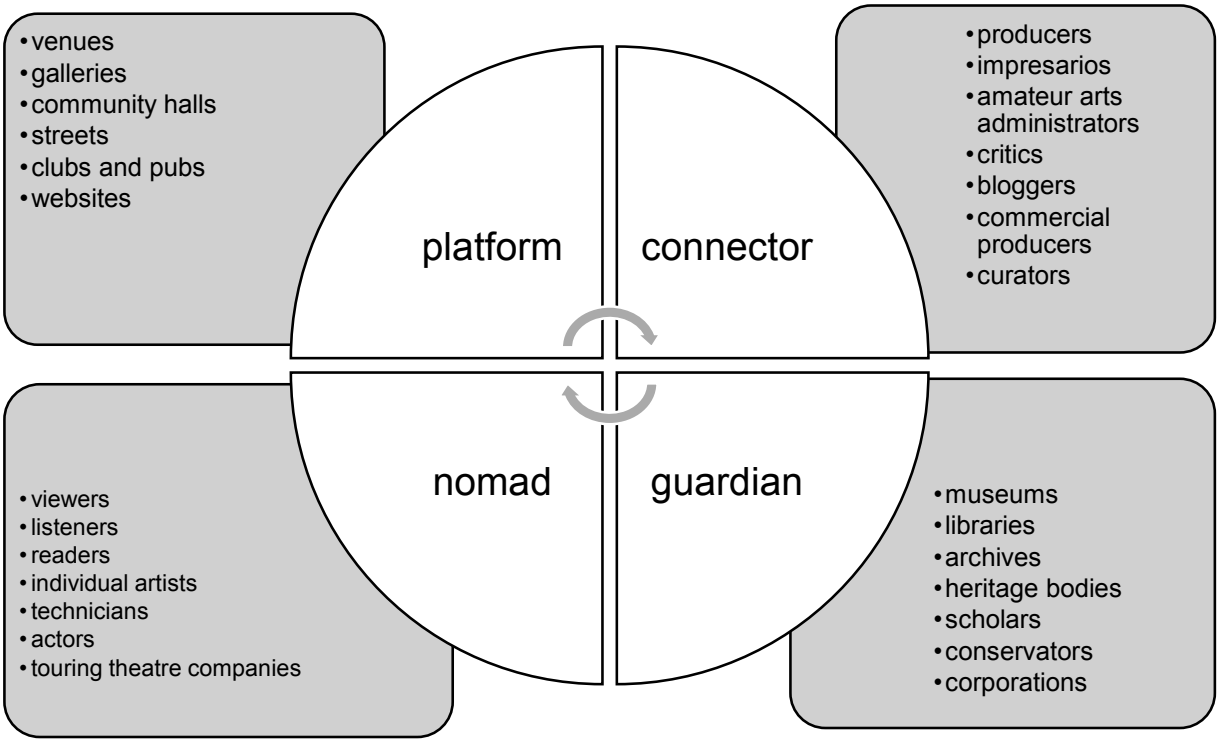

FIGURE 2.3: ROLES IN HOLDEN'S CULTURAL ECOLOGY, ADAPTED FROM HOLDEN 2015

The *platform* role is largely occupied by organisations or spaces offering physical or digital 'sites' for content. *Connectors* are those who move energy and resources around the ecology, whether professional or amateur. The *guardian* role protects cultural assets,

and as Holden notes, this may be done for the public good, as in the case of funded museums and galleries, or for commercial purposes in the case of publishing and media corporations. The *nomad* role represents both the consumers of content and the smaller and more mobile creators. Whilst this bringing-together of consumption and production is not typical in understandings of economic systems, cultural participation as an act of both making and connecting is a consideration linked to the wider cultural value argument (Gauntlett 2011). As a whole, the cultural ecology is seen to operate across the public and privately funded cultural and creative sector and needs a balance of all of these roles in order to function. This 'roles' based aspect of the cultural ecology approach provides the third framework taken forward in this investigation of the creative ecosystem.

From ecology to ecosystem

The range of debate above shows that ecology provides a popular metaphor for describing the creative industries and the range of value considerations involved. There have been limited specific references to a cultural and/or creative *ecosystem* to date, with two instances in the UK context (Jeffcutt 2004, Neelands et al. 2015), and one at European level (Bakalli 2014). These three versions of 'ecosystem' do not attempt to provide frameworks that can be mapped, but they do outline the areas covered by each approach, and this offers useful insight into the structure and purpose of an ecosystem approach in this context.

The earliest specific discussion of a creative ecosystem is seen in Jeffcutt's policy-focused approach, which undertook a regional study of the creative industries in Northern Ireland (2004), using surveys to identify creative businesses, their scale and their support needs. The creative ecosystem was coined as a metaphor to capture the key elements of creative business that needed to be supported by policy at regional level. Jeffcutt's approach stemmed from many of the same concerns highlighted above, focused on a sector with "a preponderance of micro-businesses with a complex portfolio of development needs, and […] not being supported in a coherent and integrated manner." (2004: 76). Despite being written fourteen years ago, this situation has remarkable parallels with the current picture of the creative industries in which national statistics do not capture freelancers and micro-businesses, and where "a standard analytic frame for

the investigation of creative industries in a region does not yet exist" (Jeffcutt 2004: 72). Whilst there have been significant developments in the mapping of the creative industries (Bakhshi et al. 2013a, Cunningham 2011, Higgs and Cunningham 2008), these approaches are still partial in that there is still no single agreed-upon methodological approach. The creative industries are described as trans-sectoral, trans-professional and trans-governmental in their interconnectivity and breadth, which leans toward a broader ecosystem approach, and whilst Jeffcutt does not develop a full framework for this, he identifies four key features of this ecosystem:

- Knowledge interfaces (the mix of relationships and networks that the enterprise possesses and can access)
- Mix of expertise (the matrix of expertise that the enterprise possesses and can access)
- Technology (the medium of creative activity of the enterprise)
- Organisation (the structural and operational capabilities of the enterprise)

Despite the looseness of the metaphor, and thus the difficulty in applying it to other regions or turning it into a policy approach, Jeffcutt recommends five areas of activity to develop the ecosystem, which range across the key features above and are discussed further with reference to other ecosystem approaches.

The United Nations Industrial Development Organisation (UNIDO) discussed the creative ecosystem in a 2014 report focused on rural economies, taking an approach to discussion that builds on both the triple helix model of university – government – industry engagement and the concept of creative clusters to develop economic activity based on creative products and services (Bakalli 2014). The report seems to contradict itself on whether or not creative clusters are a sub-set of industrial clusters, and the ‘creative ecosystem’ term seems to be used as a proxy for a systems approach that develops innovation and creativity. Where the report does reach a definition, it is extensive and ambitious without being specific:

> *“A creative ecosystem is a combination of enterprises, training centres, academia and research units engaged in public and private synergies around joint creative projects in a given immaterial space that can be achieved through the links the system’s members maintain between them. This system of*

> *partnerships is organized to create a pool from where innovative, creative ideas are extracted that can eventually be used by existing companies."*
>
> (Bakalli 2014: 43)

The ultimate purpose of this approach is sustainable and inclusive industrial development, but there is no model or framework drawn up that can be replicated in this study in order to either define or recognise this type of creative ecosystem.

Neelands et al. (2015) explicitly use the ecosystem as a metaphor to "stress the interdependence of the economically successful parts of the creative industries with these publicly supported sub-sectors" (2015: 20). This builds on the earlier ecological approach of Fleming and Erskine (2011) who focused on the inter-relationships between publicly-funded arts and the creative economy. However, as Holden has highlighted, these links and interdependencies are more frequently assumed than evidenced ((2015)). The Warwick Commission definition broadens the scope from creative industries to encompass a "cultural and creative industries ecosystem" (Neelands et al. 2015). As with the earlier approach of Jeffcutt (2004) and of Bakalli (2014), the descriptions of the ecosystem here are multiple and overlapping. In one instance the ecosystem is described as being made up of sectors, and in diagram form it is shown as being made up of the existing creative industries sub-sectors (Neelands et al. 2015). Whilst the overall purpose - the generation of cultural wellbeing as well as economic growth and opportunity – is evident, there is less clarity on the specific make-up or framework of this view of the creative ecosystem. The report informs us that there are synergies between the interlocking sectors within the ecosystem, that it describes a flow between two ends (commercial and cultural), that it is linked to placemaking but not just economically, and that education and skills are critical to its foundations. The ecosystem metaphor is covering a wide area here, and there is no attempt to outline the scope or constituent parts of the system in order for it to be recognised. However, the report also points out that the ecosystem as a whole is vulnerable to "a lack of sustainable infrastructure" (Neelands et al. 2015: 44). The approach taken by Neelands et al. (2015) also

recommends five areas to strengthen the ecosystem, and these are set out alongside each other in Table 2.2 below:

Table 2.2: Areas of focus to develop and strengthen ecosystems, developed for this study from Jeffcutt (2004) and Neelands et al. (2015)

There are areas of overlap between the two approaches but as with the definitional approaches these do not fully align, which serves to underline that each perspective on ecosystem offers something different. This is further supported when revisiting the stated purpose of the ecosystem analogy in each of the examples above, as shown in Table 2.3 below:

Table 2.3: The purpose(s) of an ecosystem approach, from Jeffcutt (2004), Bakalli (2014) and Neelands et al. (2015).

What is common across all three of the ecosystem approaches focused on the creative sector is their position that the system needs maintenance or development, suggesting that it can be developed beyond metaphor. Jeffcutt (and also Isenberg)

maintains that any development strategy needs to be ecological and that this needs to take "a coherent and integrated approach to the key elements and dynamics of the ecosystem" (Jeffcutt 2004: 77). However, as also seen later in the Isenberg discussion, Jeffcutt warns that there is no “magic bullet” for policy (2004).

In summary, the preceding pages have described how the creative ecosystem has been approached from different perspectives and with different purposes; in so doing this brings to mind Markusen’s “fuzzy concepts” criticism in discussion of regional studies analysis (2010). It does so for two significant reasons. Firstly her definition: these are approaches which possess “two or more alternative meanings and thus cannot be reliably identified or applied by different readers or scholars” (2010: 702), and secondly the acknowledgement that “new concepts, as they emerge, may be fuzzy simply because they are in the state of development” (2010: 703). This does not mean that there can never be definitional agreement on the creative ecosystem, but this application of the term is relatively new and could be seen to be in the early stages of development. Markusen does warn that “ill-defined concepts are simply more difficult to demonstrate empirically” (2010: 705) and this contributes to the use in this study of Moore’s business ecosystem, Isenberg’s entrepreneurial ecosystem, and Holden’s cultural ecology approaches as they are the most developed and clearly defined of the concepts to date.

d) What does ecosystem offer that other approaches do not?

The ecosystem has been discussed as an approach to business strategy (Isenberg 2011, Gossain and Kandiah 1998, Moore 1996), and as a support infrastructure for high growth enterprises (Hearn and Pace 2006, Iansiti and Levien 2004, Mason and Brown 2014). In the creative context, ecosystem approaches are also considered as a means of identifying appropriate areas for policy support (Bakalli 2014, Jeffcutt 2004, Neelands et al. 2015). Prior to this approach, the cultural and creative setting has been conceptualised in a variety of ways in order to understand the “mixed economy of forms” (Jeffcutt 2004: 69) that operate within it. There are a variety of existing approaches to discussing the sector, which have attempted to capture its dynamics, scale and scope as a system of production beyond the ‘creative industry’ and ‘creative economy’ approach of the

Department for Culture, Media and Sport. These are summarised in Table 2.2 below. The following discussion outlines whether and how the ecosystem model offers anything new or additional to these approaches.

Term	Key references for the creative sector
Concentric circles of creativity	(Throsby 2008, The Work Foundation 2007)
Creative clusters	(Bakalli 2014, Boix et al. 2015, BOP Consulting 2013, Chapain and Comunian 2010, Pratt 2003)
Creative / knowledge spillovers	(Chapain et al. 2010, Fleming 2015)
Creative city	(Evans 2009, Landry and Bianchini 1995, Pratt 2008)
Creative hub	(Dovey and Pratt 2016, Dovey et al. 2016, Lampel and Germain 2016)

Table 2.4: Existing approaches to grouping and understanding the cultural and creative sector

The concentric circles model of the creative industries emerged in 2006 in the Work Foundation report exploring the economic performance of the creative industries, and was central to Throsby's (2008) discussions of the cultural economy. Both approaches describe a core of creative production work surrounded by additional supply (and value) chain elements that are intrinsically linked to the creative industries but do not in themselves produce creative outputs. This approach has largely been applied in categorizing and grouping employment and Gross Value-Added data, and thus sits within the economic perspective outlined above. The concept of the creative ecosystem aims to take in a broader approach to value than the concentric circles approach, but as shown above this has not yet been formalized into a model that has been applied to sector data or insights.

Creative clusters are widely accepted to be a sub-set of the industrial clusters approach (Bakalli 2014, Pratt 2003) in which related businesses are transactionally or geographically connected, generating positive effects on competition and co-operation (Pratt 2004). This originated with a focus on the competitive advantage of the individual firm (Porter 1990). Pratt suggests that for the creative business, "non-traded or non-

economic dependencies might account for clustering" (2004: 52), but the majority of his discussion focuses explicitly on the market-oriented aspects of the creative sector. This approach acknowledges that, whilst creative businesses are motivated by a wide range of drivers, the creative clusters agenda specifically brings together the policy aspiration of promoting local competitive advantage, and the focus on the creative industries as a region's leading high-growth sector. Pratt pursues this line and, in seeking to describe how the creative industries generate clusters, concludes that production chains are an over-simplified approach and that:

> *"the metaphor of a web rather than a chain is perhaps a more appropriate one. The project of gaining an overview of the whole process or web is more challenging than simply acknowledging inputs and outputs; here we need to investigate the quality as well as the quantity of these linkages. Lest we become confused by the usage of the term 'mapping' here, we should be clear that creative industry mapping documents have thus far simply measured quantities at the nodes such as employment and output (see DCMS, 2001); investigating the characteristics of the flows and relationships is a far more challenging task."*
>
> (Pratt 2003: 60)

Pratt includes a simplified figure entitled "the creative industries ecosystem" (2003: 61), which is described as plotting the relationships between different points in the creative production chain. However this illustration does not form a framework that could easily be re-applied, even within the sector. This relationship plotting principle is intended to highlight the places and functions where the creative industries form clusters, to make the point that any approach to system governance needs to acknowledge that clusters are self-generating. Flew (2010) points out that the general concept of clusters has become flexible over time, and the distinction between different types of cluster (whether vertical as a result of supply chain integration, or horizontal as a result of co-location) has been diluted, resulting in a potentially less meaningful term.

Discussions of cluster are intrinsically linked to spillover effects, and in the creative and cultural context these spillovers have been categorised as innovation, knowledge, financial capital, social capital and employment focused (Fleming 2015). Bakalli (2014) considers clusters to be part of the wider creative ecosystem and points out that the UNIDO approach includes spillover effects to other sub-sectors and areas. Arts Council England consider four broad spillover 'impacts' of the arts, all linked to additional spending or income generation: tourism spend, developing commercial growth, improving productivity, or contributing to economic regeneration (England 2015). This focus on 'spillover as financial flow' is criticised by Holden (2015), who considers that spillovers or any kind of intended or unintended consequences of activity have a wider potential benefit. In a Europe-wide literature review, Fleming defined creative and cultural spillovers as "the process by which activity in the arts, culture and creative industries has a subsequent broader impact on places, society or the economy through the overflow of concepts, ideas, skills, knowledge and different types of capital" (2015: 15). Fleming (2015) goes on to categorise three broad types of spillover effects emerging from literature on the creative and cultural industries, covering knowledge, industry and network, and further identifies a number of sub-categories within these areas, as shown in Table 2.5 below.

Type of spillover	**Sub-category**
Knowledge	Stimulating creativity and encouraging potential
	Increasing visibility, tolerance and cultural exchange between communities
	Changing attitudes in participation and openness toward arts
	Increase in employability and skills development in society
	Strengthening cross-border and cross-sector collaborations
	Testing new forms of organisation and new management structures
	Facilitating knowledge exchange and culture-led innovation
Industry	Improved business culture and boosting entrepreneurship
	Impacts on residential and commercial property values
	Stimulating private and foreign investment

	Improving productivity, profitability and competitiveness
	Boosting innovation and digital technology
Network	Building social cohesion, community development and integration
	Improving health and wellbeing
	Creating an attractive ecosystem and creative milieu, city-branding and place-making
	Stimulating urban development, regeneration and infrastructure
	Boosting economic impact from clusters and regions

Table 2.5: Types of spillover identified in literatures on creative industries, adapted for this study from Fleming 2015

Table 2.5 sets out a number of cultural and social impacts considered to be spillovers in the creative industries context, which suggests that there is merit in exploring the non-financial aspects of the system (Holden 2015). From an ecosystem perspective, Spigel (2015) and others describe the ways in which inputs and contextual factors are equally as important as outputs (Korhonen et al. 2007, Mason and Brown 2014, Spigel 2015). The evidence base around spillovers in the creative industry context has not yet been sufficiently advanced as to take into account the complexity of inputs as well as outputs. This offers the possibility for a creative ecosystem approach to consider inputs and outputs as valid features within the component parts of the model.

The creative cities concept emerged as a local regeneration approach, in the work of Landry and Bianchini (1995). Employed and evaluated shortly before the national policy focus on the creative industries, these approaches set out an array of areas in which policy and change makers can develop a creative city. However, they do not explore the definition of a creative city, nor the reasons why this should be a goal. Despite this, it became a popular policy goal, but was later criticised by Evans (2009) for the frequency of ‘transfer and emulation’ approaches whereby creative city schemes were (often unsuccessfully) templated rather than generated from the existing creative and city milieu. Creative hubs represent a related concept, being “a universal but slippery term to label

centres of creative enterprise, representing many different shapes, sizes and agendas" (Dovey and Pratt 2016: 2). In contradiction to the criticism of creative city initiatives, Dovey and Pratt (2016) note that the term has been applied to a wide range of very different approaches and has also been "unhelpfully conflated with other types of industrial agglomeration that are closely aligned to the cluster concept" (2016: 10). There is a suggestion that despite their popularity with policy-makers, sector-based approaches such as creative cities or hubs are antithetical to the entrepreneurial perspective above:

> *"One of the unrecognised problems in sectoral cluster strategies is that picking sectors for preferable attention, by a top-down analysis of comparative advantage, actually dulls the entrepreneurial spirit."*
>
> (Isenberg 2011: 4)

The terms explored above are predominantly focused on regional or local economic development. In contrast, the approaches to the creative ecosystem discussed above are not 'restricted' by geography in the same way as creative cities and hubs, and allow recognition of a wider value framing than the creative cluster's economic approach. The creative ecosystem also acknowledges a range of connections that may not be directly connected to the creative product or service, which broadens the scope beyond the cluster approaches discussed above. Whilst spillovers in the creative context do extend beyond economic value, the ecosystem approach would allow consideration of inputs as well as outputs, which has been criticised in spillover discussions to date. There also seems to be a developmental focus to the creative ecosystem which recognises the 'feeder' aspects to the system over time. In so doing, an ecosystem approach may also work toward a more sustainable approach rather than being focused on shorter-term economic metrics.

The discussion above begins to suggest that an ecosystem approach offers an understanding above and beyond existing approaches. This question has also been raised outside of the creative sector, although there has been no clear and unequivocal answer in the debates to date (Acs et al. 2017, Anggraeni et al. 2007, Peltoniemi 2004). O'Connor et al. (2018), in their focus on the entrepreneurial ecosystem as a means of

understanding place-based renewal, have reviewed the definition of ecosystem alongside other economic geography approaches and determined that it takes an inherently geographic perspective. This conflicts with the discussion above, which suggests that a *creative* ecosystem approach does not inherently assume a place-based perspective.

e) Summary

This chapter has identified key approaches to understanding business settings as, variously, an ecosystem or an ecology. The three key definitions to be taken forward in this study are those within which clear approaches to categorisation are set out, namely Moore's business ecosystem; Isenberg's entrepreneurial ecosystem; and Holden's cultural ecology. This will aid in the creation of a mapping approach.

Moore's ecosystem (1996) represents the origin of the ecosystem approaches in a business context and takes an approach with an organisation at the centre. The entrepreneurial ecosystem of Isenberg (2011) considers the micro-enterprises within the system and takes a wider regional approach. Holden's cultural ecology (2015) sets out a smaller number of roles within the system but takes a specifically cultural approach to the classifications. Thus, this investigation of the creative and cultural ecosystem concept brings together elements of existing entrepreneurship theory with ongoing definitional and managerial debates in and about the creative industries. These approaches are collectively referred to as the epistemological ecosystem, and individually as ecosystem frameworks across the following chapters.

The purpose of developing the creative ecosystem in this investigation is twofold. Firstly, applying the ecosystem metaphor to the sector can be useful in helping to understand its richness and diversity, especially with a focus on the smaller organisations and enterprises that make up an inherently fluid and ever-changing system. Secondly, taking a broad approach to understanding the creative industries through the ecosystem approach (rather than reach definitional agreement), could be fruitful. This is because both ecosystem and creative industry debates are often characterised by definitional approaches, and the importance of 'sector' as a frame is questioned in both cases.

On the creative ecosystem: chapter 2

Through an interrogation of the selected models, this study asks: to what extent do the multiple perspectives on ecosystem, when tested through data, contribute to an understanding of the creative ecosystem? Furthermore, how does this ecosystem approach both support the sector and refine our understandings of it?

3) Developing and conducting a multi-stage investigation

Having selected three ecosystem approaches with reference to a broad set of recent literatures on ecologies and ecosystems, this chapter sets out in detail the ways in which these frameworks will be further explored in the context of the creative and cultural industries; from both a conceptual perspective [methodology] and a practical perspective [methods]. The researcher philosophy and research design are set out before the chapter moves on to describe the three stages of the research approach taken and the application of the chosen research methods. The chapter ends with some learning and reflections on the research process.

a) Philosophy and ontology

The research aim leads to a qualitative approach to research design, which continues the qualitative trend in investigations of both entrepreneurship (Chalmers and Shaw 2015, Davidsson and Honig 2003, Perren and Ram 2004) and the creative enterprise (Chaston 2008, Poettschacher 2005, Pret et al. 2015, Rae 2011). Within the qualitative approach, it is crucial to reflect on my own position as researcher, in order to identify and work around the potential bias that this creates (Bryman 2012). As a researcher, I take a constructivist position, in that I believe the 'truths' found by research are context dependent, and furthermore that I participate in the construction of the meanings I elicit, rather than these existing independently in order to be discovered (Bryman 2012: 36). Whilst none of the participants were personally known to me prior to the research, I have worked with several small cultural and creative businesses across sub-sector areas – craft, performance, visual art and heritage – and have some understanding of the business management and development issues that can be faced, as well as the policy and support environment. During both the conduct and the analysis of the research, it was important to identify my own position in relation to the business so that I could make best use of this contextual and experiential knowledge. My own background was useful in understanding the contexts and implications that were sometimes implicit in the data, but it was also important not to colour my analysis and interpretation with this background.

The multi-stage study used theory as a framework for investigation, which follows broadly deductive principles. However as thinking around the research design progressed, a more inductive approach became relevant. The investigation moved between data collection and analysis to develop the concept of the ecosystem and identify its usefulness and observable effects as a generative mechanism (Bryman 2012). The study design thus featured a number of methods that explored different facets of the ecosystem concept and were designed to complement and triangulate each other. The iterative approach followed the outline principles of grounded theory, which offers a systematic but flexible approach in order to "generate theory from data collected during the study" (Robson and McCartan 2016: 80). However, rather than drawing theory from one set of data, the study moved back and forth between the framework and findings to substantiate the theoretical frameworks, and to develop the concept of the ecosystem, in a more inductive manner.

The work included a case study approach to explore business journeys, which is common in investigations of the creative industries (Markusen 2006, Perren and Ram 2004, Shaw et al. 2012). The approach was designed to elicit "detailed, intensive knowledge about a single 'case'" (Robson and McCartan 2016: 80), which could have raised issues of sample size and generalizability. However, this study approach aligned with the view of Easton, who argues that it is possible "to understand a phenomenon in depth and comprehensively" through a single case (2010: 118). The use of multiple types and sources of data to build each case and to understand constructed meanings also contributed to the internal validity of the work, as findings and insights could be cross-validated. The data collected for the case studies varied by participant and was not intended to be prescriptive, instead being open to the directions provided by the research, following Perren and Ram's 'multiple stories milieu' categorisation (2004), which focuses on subjective exploration and uses the business, rather than the individual entrepreneur, as the core focus.

From an ethnographic standpoint, researcher participation and involvement in the organisations studied was low and fit Bryman's definition of a *non-participating observer with interaction*, in which "interaction with group members occurs, but often tends to be

through interviews, which, along with documents, tend to be the main source of data" (2012: 444). Ethically, it was also important to recognise the impact of even a short period of engagement with this low intent to participate, particularly where micro-enterprises are concerned. The research took up time that would ordinarily have been spent earning income, and any distraction from this was likely to have significant impact. The study approach also needed to engage in an overt discussion of specific issues, so any level of covert engagement would have been inappropriate for methodological and ethical reasons. To fulfil the aims of the study, fuller participation as a researcher could also have elicited the required detail, but this would have required a much longer period of time as well as more specialist sub-sector knowledge in order to participate in the operation of the business (or at the least, minimise the distraction). Consequently, an overt, and non-participatory, position was deemed more appropriate.

b) Research design: investigating the creative ecosystem

The research design took into account the national policy environment, and the lived experiences and business journeys of micro-enterprises within the industry. A multi-strategy approach had the benefit of creating opportunities for the triangulation of findings, as well as offsetting weaknesses and refining the research question as the work developed (Bryman 2012). To investigate the usefulness of the ecosystem approach, the study's empirical methods were structured in three stages (see Figure 1.2). The first stage established a particular perspective on the creative and cultural ecosystem through a mapping approach. Using literature and existing data sources, the creative and cultural system was explored within the theoretical framework of the ecosystem as developed through the literature review. The first stage of research thus developed the work that the literature review had started, drawing on three theoretical approaches to create a typology or framework for the ecosystem that could then be populated with industry-specific features. The outcome was a series of visualisations of this data which were incorporated into stakeholder interviews, as outlined below.

The second stage took a different entry point to develop additional perspectives on the creative ecosystem. This stage also took the opportunity to 'validate' the

ecosystem map through interviews with key informants selected from significant stakeholder and intermediary organisations across the creative industries, and interviews discussed the documentary mapping of the ecosystem above. In this way, the stakeholder interviews developed an additional lens on the ecosystem concept in context, adding to the richness of the investigation.

The third stage of research was designed to capture the ecosystem perspectives of micro-enterprises, as the dominant organisation form across the creative industries. This element became even more important in light of the lack of a unified ecosystem map generated by the previous phases. The research used in-depth interviews and document analysis to explore the motivators and drivers of the business approach, and to uncover elements of the ecosystem and support network that had been accessed over time to facilitate the business as a business. The products of this stage of work were six case studies focused on creative industry micro-enterprises, which worked towards a presentation of the 'ecosystem' as experienced by these selected micro-enterprises (Perren and Ram 2004). It is important to recognise that the variation across sources and discussions lead to an understanding of the wider creative ecosystem that is general, rather than generalised. The final consideration within this stage was a comparison of the ecosystem map (created during stages one and two) and the business 'journeys' of the micro-enterprises as documented through the light-touch case studies in stage three.

Stage 1: Mapping the ecosystem from secondary data sources

To investigate the usefulness of the 'ecosystem' concept in understanding the value landscape of creative and cultural business, the first stage of work created a documentary mapping of the institutions and infrastructure of the creative ecosystem at a single point in time. This worked within a composite typology of the ecosystem adapted to the creative industries and built within chapter 2. The steps within stage 1 are set out in Figure 3.1 below:

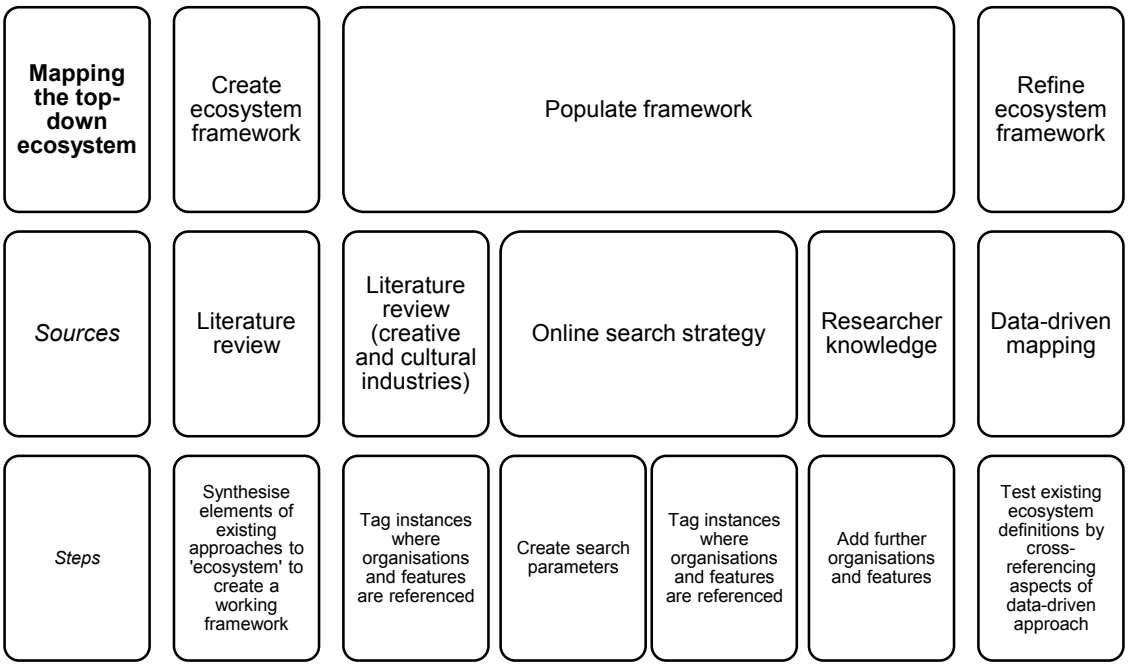

FIGURE 3.1: STAGE 1 METHODS, ECOSYSTEM MAPPING

This stage created a map or inventory of the ecosystem across the creative and cultural industries, following the pillars and components of an ecosystem, types of organisation, and other organising frames that emerged from the literature review. The process operationalised the ecosystem frameworks identified as useful in chapter two, including Holden (2015), Isenberg (2011) and Moore (2006), and incorporating key sources (Fleming and Erskine 2011, Neelands et al. 2015). Drawing from these literatures provided categories within which to represent ecosystem activities – firms, key funding organisations, knowledge hubs, trade associations and networks, policy initiatives, and generally the 'anchor' institutions and activities of the system. The overall aim of this stage, then, was to map the features of the ecosystem identified in the literature, using the NVivo qualitative data analysis package to collate sources and categorise them with thematic and descriptive 'tags'. Computer aided qualitative research software was used

to enhance the range of possible analyses as well as enable familiarity with the data sources.

Populating the ecosystem framework from literature and online searching

After establishing the outline ecosystem framework, the key literature sources around the creative and cultural ecosystem and the cultural and arts ecology (Fleming and Erskine 2011, Holden 2015, Neelands et al. 2015) were reviewed for specific mentions of organisations, initiatives and other features that could be considered elements of the creative and cultural ecosystem. This included government strategies and delivered programmes as they have a potential effect on the other functioning elements of the ecosystem. As organisations or features were identified, they were added to a table within the software [here called a **classification sheet**], and tagged thematically, so that the data and relationships across the attributes could be analysed. For example, within Fleming and Erskine (2011) are a number of references to the Arts Council. The *NVivo* software was used to log the 'Arts Council' as a distinct feature of the ecosystem [here called a **case**], and also the specific places within the report that mention the organisation; which tracks both the **source** document and the **references** within it. As organisations and other significant features (such as policy initiatives or funding streams) were mentioned in the key literatures, they were added to the NVivo database as a case, and their references tracked within the source documents. The cases were then added to a **classification sheet**, which can be customised to track additional information or **attributes**.

This data entry process generated a need to conduct a supplementary online search for clarifying data, as several of the contributors and initiatives mentioned in the literature were broad headings or collectives. The Creative Industries Council, for example, cited in the Warwick Commission on the Future of Cultural Value, is a group made up of policy representatives and sector organisations. These further organisations were added to the classification sheet in their own right within this phase, and tagged with the appropriate attributes, as detailed below. This phase of mapping generated 329

discrete database entries. Appendix 3.1 sets out the numbers of database entries generated by each step of the process.

The online search strategy formed the next step of the process, and Figure 3.2 below sets out the specific search terms that were used across two different search engines. This list of terms began with keywords describing the creative and cultural sector, and then added additional focusing keywords, firstly from generic business support terms, and then using the entrepreneurial ecosystem domains of Isenberg, Moore's business ecosystem functions and Holden's cultural ecology roles, in order to uncover further detail on the features of the ecosystem construct.

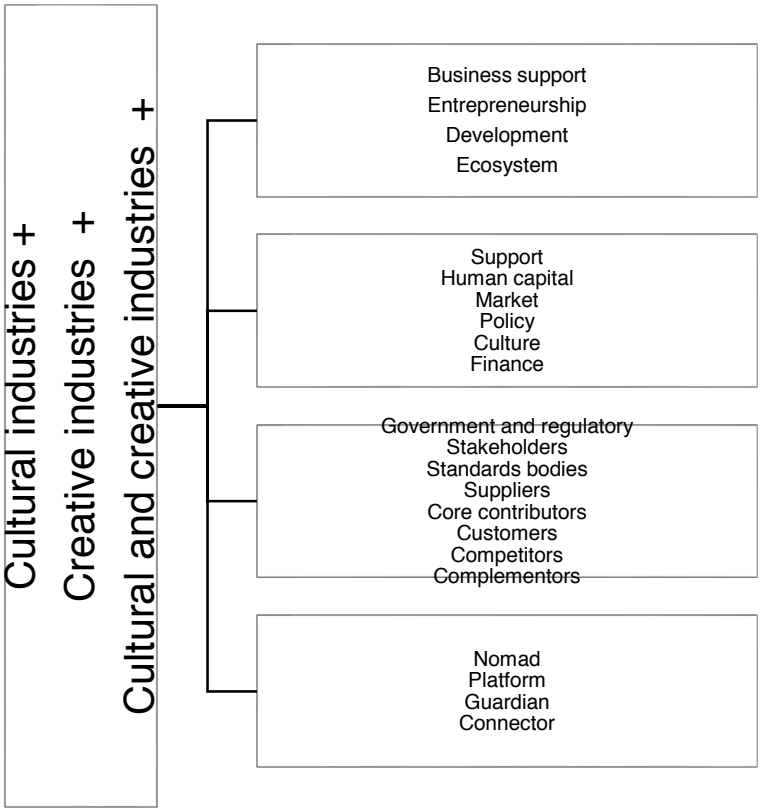

FIGURE 3.2: SEARCH TERMS USED TO POPULATE ECOSYSTEM MAP (DEVELOPED FOR THIS STUDY)

The organisations and features identified during this phase were tracked on a single document that was imported into NVivo software as a reference source, so that the organisations / features could be added to the existing classification sheet. Where results were already contained within the database, this was reflected in an additional ‘source’ column that tracked the original source and the web search. This aspect was important when it came to considering the relative prominence, or weight, of different ecosystem features. As set out in Appendix 3.1, this phase of mapping generated a further 259 discrete database entries.

Beginning with the visualisations from prior phases, the ecosystem map to this point was reviewed for the omission of major organisations and functions known by the researcher to operate within and across the creative and cultural industries. In line with the process followed above, additional potential entries were summarised on a document which was imported as a reference in NVivo software before the organisations / features were entered into the existing classification sheet. Two additional organisations were identified at this stage.

Each entry in the classification sheet was tagged against attributes. These were developed based on the theoretical framework developed from the literatures and were assigned to each organisation. The full detail of attribute values, and the rationale for their inclusion, is shown in Appendix 3.2. The process of assigning attribute tags in this fashion revealed that there is a lack of consistent metrics across the creative and cultural industries. Where available, independent sources have been used to verify data – such as the SIC code and legal entity status of registered companies – but this is not possible across all of the attributes used. The application of ecosystem characteristics has used the author definitions as far as possible, but this also leaves room for a range of interpretation in some cases. Consequently, cross-referencing the component aspects in each typology can only give an indicative perspective on overlaps and agreements.

The majority of entries to the database (89%) were organisations or entities. A further 48 entries were tagged as ‘not applicable’ or ‘funded project’, which reflects the existence of non-organisation features within the ecosystem. This aligns with

entrepreneurial and business theory views of the ecosystem, which contain a mixture of organisations, policies and support initiatives. As noted above, non-organisational features were also captured in this study, in order to reflect the breadth of the ecosystem.

Analysing the populated ecosystem framework

The data emerging from the literature was first analysed from the perspective of the conceptual framework developed from Moore's business ecosystem functions, Isenberg's entrepreneurial ecosystem domains, and Holden's cultural ecology roles.

The first stage of analysis was qualitative in nature and used content analysis approaches, using the NVivo qualitative data package to collate sources, categorise them with thematic and descriptive 'tags', and to query the data that was collected. However, this also formed part of the process of building the ecosystem 'map' so the data collection and analysis approach was iterative and gradual. The data was mapped three times, creating one visualisation of each theoretical framework (business ecosystem, entrepreneurial ecosystem, and cultural ecology). To allow consistency with the case study analysis approaches, and to provide additional insight, the geographic focus of each ecosystem element was also incorporated at this stage. The theoretical framework data was then cross-referenced to establish the extent to which a meta-system could be generated that considered all three approaches. The outcome of the secondary data-driven stage was an ecosystem mapping which revealed both the contradictions and agreements of different approaches to this emerging framework and metaphor (presented in chapter four). These contextualised mappings were then used as part of the stakeholder interviews to explore stakeholder perspectives on this version of the ecosystem after discussing their own definition and understandings. The analysis moved on to locate the findings within wider data about the creative and cultural industries to develop further understanding of the mapped creative and cultural ecosystem. This incorporated the data that had been collected on SIC codes, sub-sector focus, geographic location and geographic target area or audience. Existing statistical sources were used as comparators, and this set of findings is presented in chapter five.

Stage 2: Interviews with key stakeholders and testing the emerging map

This stage developed insight into the ecosystem concept from a number of sector stakeholder perspectives. These situated understandings offered a more nuanced perspective on the creative ecosystem. In addition, the semi-structured interviews offered the opportunity to validate the ecosystem maps generated in the previous stage from secondary data sources.

Sampling and invitations

Semi-structured interviews took place with eight key informants representing stakeholders and other significant organisations across the national creative and cultural industries, following a process ethically approved through university protocols as covered in appendix 3.3. The table below shows the spread of invited organisations against each of the elements within the ecosystem framework – it was intended that each of the framework areas be represented by a stakeholder. Whilst invitations were issued to ten organisations in order to cover the range of ecosystem elements, not all invitations were accepted due to pressures of time and work. Across the eight stakeholder interviews that did take place, all of the elements in the three frameworks were represented with the exception of Moore's 'customers', 'competitors' and 'core contributors'; and the 'nomad' role in Holden's cultural ecology. As discussed in the previous chapter, these functions and roles are where the creators of content would be located, and as such there was no expectation that stakeholders and intermediaries would be represented here. The micro-enterprises that form the case study focus do fulfil these roles and functions.

			Isenberg's domains						Moore's functions									Holden's roles			
	Physical location	Organisation type	Support	Human capital	Markets	Policy	Culture	Finance	*Customers*	*Competitors*	Standards bodies	Complementors	Core contributors	Stakeholders	Government and regulatory	Suppliers	Distribution channel	Guardian	Connector	Nomad	Platform
S001	London	Community Interest Company		✓										✓					✓		
S002	East Midlands	Local authority				✓									✓				✓		
S003	London	Trade body				✓									✓				✓		
S004	London	Research organisation			✓									✓				None applicable			
S005	West Midlands	University	✓				✓									✓		None applicable			
S006	London	Sub-sector trade body		✓								✓						✓			
S007	London	Sector skills		✓										✓				None applicable			
S008	West Midlands	Funder	✓					✓			✓				✓		✓	✓			

Table 3.1: Representing ecosystem components across stakeholders

Five of the eight organisations were London-based, although all of these had a national remit. The mapping process captured both the physical location and target location of organisations, and the physical location of stakeholders proved interesting in light of their comments on this aspect of the emerging ecosystem map. The functions of the stakeholder organisations included education and skills for the creative industries, policy and campaigning for creative industry organisations, business support to the creative industries, research and data-based perspectives on the creative sector, and sub-sector specific support. The regionally located interviews covered the academic perspective, the local authority perspective and the regional arts policy / funding perspective. Each of these areas was significant within the results of the stage 1 mapping process. The interviews themselves aimed to explore firstly whether the representatives themselves recognised the concept of the ecosystem; secondly, how they described it, its contents and its purpose – for the part(s) of the sector that they represented; and thirdly, given this, their thoughts on the findings of the stage 1 mapping. The interview guide used with key stakeholders across the creative and cultural industries is included at Appendix 3.4. Those invitees who took part were sent a copy of the participant information sheet and signed a copy of the participant consent form (appendix 3.3) to reflect that they had had a briefing on the nature and purpose of the research and consented to taking part. Interviews took place, for the most part, in public spaces or by telephone.

Interview guide

Interviews opened with an invitation to discuss what an ecosystem might be considered to contain. The semi-structured interview guide (see appendix 3.4) included questions exploring the meaning and content of ecosystem from each stakeholder perspective. Another consideration in incorporating this angle was to open a dialogue with key stakeholders with a view to developing impact through the findings of the work. Following the discussion of the ecosystem concept from the stakeholder perspective, the interviews moved on to present the ecosystem mapping completed in the previous phase. Discussion then covered the component parts and emerging findings from this mapping, again from the perspective of these stakeholders within the sector.

Analysis of stakeholder interviews

Interview transcripts were reviewed, coded and analysed individually, using a thematic analysis approach. An example of the coding approach is included at appendix 3.5. Initial codes were allocated using the attribution tags that were created from the theoretical frameworks above. An iterative coding process identified further themes emerging from the interviews both individually and as a corpus of analysis. Additional analysis and reflection carried out at this stage intended to develop the concept of an ecosystem as it applied to this industry context. Content analysis of the transcripts of stakeholder interviews was further conducted to explore the perspectives on ecosystem. This was carried out across individual interviews and across all transcripts collectively to see whether there were patterns or themes emerging across the range of stakeholder perspectives. Results of this process are provided in chapter six.

Stage 3: Understanding the creative micro-enterprise journey - case studies

To develop an understanding of the usefulness of the ecosystem it was also necessary to understand how it captures the business journey and experience of creative micro-enterprises. In-depth interviews and document analysis were used in a case study approach that captured lived and worked experiences and (often undocumented) aspects of production and operation in the creative micro-enterprise. A case study approach was selected to allow for the inclusion of a range of data sources in order to build a credible and confirmable narrative (Lincoln and Guba 1985). This stage of research gathered qualitative data on the range of approaches to value creation of the micro-enterprise (roughly equated to business models), and the features or critical points that have featured along the micro-enterprise journey as determined and described by the business owner. These features provided ways in to understanding the building blocks of each micro-enterprise business journey, which was then used to map the ecosystem within which they sit.

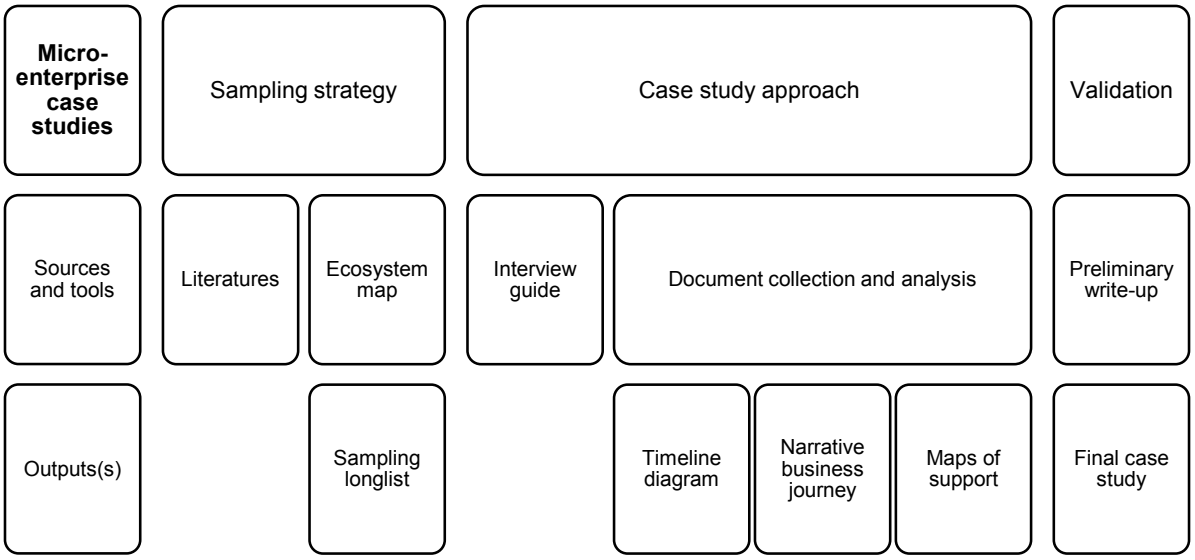

FIGURE 3.3: STAGES AND METHODS IN DEVELOPING CREATIVE INDUSTRY MICROBUSINESS CASE STUDIES

Sampling and recruitment

Case study organisations were approached from across the range of industry sub-sectors, with a focus on a single administrative and geographical region to provide a boundary for case selection. To be considered as a case study site for this investigation, the organisation was required to meet the sampling factors included in Table 3.2 below.

Factor	Rationale

• registered business
  • sole trader
  • limited company
  • partnership
  • charitable organisation
	To allow for collection of documents pertaining to the business lifecycle; to reflect the dominant types of organisation across the creative industries (Garcia et al. 2018)

• fewer than 10 employees • less than €2m turnover p.a.	Follows the European definition of microbusiness (Middlesex University et al. 2016)
creating work across the creative industry sub-sectors	The creative industries are dominated by small, well-established businesses (BOP Consulting 2012b)
In operation for a minimum of 12 months	To allow for some reflection on the business journey.
Based in the West Midlands of the UK	To allow for completion within available timescales; To allow for overlapping fields of activity and richer ecosystem perspectives.

Table 3.2: Sampling considerations for micro-enterprise case studies

There were five key elements to identifying and selecting case study sites as set out in the above table. In order to be able to collect documents about the organisation as a business entity, the case study site needed to be registered as a business at a formal level. Whilst this does exclude the large proportion of those in the creative industries operating as sole traders or freelancers, it was deemed appropriate in securing sufficient data to carry out this study. Following on from this, the business needed to satisfy the

widely accepted definition of a micro-enterprise as set out at national and European level. The Companies House and Charities Commission online databases were used to sift out organisations that were too large to be considered micro-enterprises. These sources were also used to identify the SIC code of the organisations and ensure that the selected organisations operated in the categories identified as “creative industries” (notwithstanding the criticisms of this coding system). A further sifting criterion was added to ensure that organisations had been in operation for a minimum of twelve months, in order that there was sufficient documentary data available on which to build a case study. Finally, consideration was given to regional coverage and sub-sector coverage in the selection of case study sites: an element of breadth here was important so that the study could keep the ‘creative ecosystem’ as the primary focus, and not be drawn in to the systems and connections within a sub-sector or local area. The West Midlands region was selected as the geographic frame for the study given the researcher’s location within this region.

Recruitment was carried out via email using the invitation approach approved via the University ethics committee. Organisations were initially identified through purposive sampling approaches using online searches and researcher knowledge, and this longlist is summarised in appendix 3.6. Initial approaches were made by telephone, with a brief explanation of the research request and to check the appropriate email address to send the written invitation. Of the organisations that responded, three were selected from the theatre, music and performing arts sector; one craft (jewellery) maker; one marketing business, and one micro-enterprise in the publishing sub-sector. The interviews, and associated document collection, were carried out over a two-month period in 2017.

Interviews and document collection

Data collection comprised a web search for relevant documents, focused on the micro-enterprise organisation website and the Companies House or Charity Commission sites, and semi-structured interviews following the protocol set out in Appendix 3.3. Specific sources of data for each case study are set out in Appendix 3.7, but overall, they included:

- Interview transcripts
- Field notes
- Company and / or Charity accounts
- Additional documents supplied by the organisation – this varied by organisation and was voluntary.
- Websites and other published material for the case study organisations – the content here varied by organisation.

As with the stakeholder interview stage above, participating micro-enterprises were given a copy of the participant information sheet and signed a copy of the participant consent form (appendix 3.3) to reflect that they had had a briefing on the nature and purpose of the research and consented to taking part. Interviews took place in micro-enterprise business premises, and an element of participant observation was possible which enhanced the researcher's understanding of the business. The beginning of each interview introduced the study and checked that the participant information sheet had been received and understood, before the informed consent form was signed. All interviews were audio recorded with a transcript being written up within four weeks so that recordings could be destroyed by the end of the project as per published information. Field notes were made following the interviews as an aide-memoire and to contribute to the contextual elements of the narrative case study write-up.

A short pro-forma document (see appendix 3.8) was used as a guide for starting the conversation about the organisation. This captured key information on the formal status of the organisation, the number of employees and the approximate turnover, in order to confirm that the organisation did fit the definition of a micro-enterprise. This approach also established the approximate start date of the business, which opened up a semi-structured conversation about the organisation journey, the challenges and critical incidents (Butterfield et al. 2004), and the support needs and resources along the way. In each case, the discussion also explored the key differences in the approach or ethos of the organisation. This prompted some discussion of the driving values behind the business itself. The interviews closed with a request for any additional documents that the interviewee would be happy to share. Interviews were transcribed verbatim, using

field notes to clarify detail and focus the significance of events and connections. The written-up case studies presented in chapter seven have been reviewed by the micro-enterprise organisations for overall accuracy. To support the interviewees in this review process, an additional document was sent to the case study sites that explained the categories within each ecosystem framework approach, with a brief definition of each aspect.

Approach to analysis

The approach to analysis combined content analysis of the transcripts of interviews and business documents, followed by thematic analysis of the data emerging from these to build up a case study picture. Across the case studies, further thematic analysis was carried out to contextualise the insights and stories emerging from the data sources.

To develop the timelines, filed accounts from Companies House or the Charities Commission were used as the first stage of development, providing the basic details of when the micro-enterprise was formed or incorporated, as well as background information which was used as a basic illustration of financial performance and development. Additional key dates and events were drawn from the company accounts paperwork, interview transcripts and any additional documents supplied. Quotes from the interviews or other key documents were then used to illustrate the timeline. Interview transcripts were the primary source used to develop the narrative description of the business journey, exploring further detail behind the timeline itself. A draft timeline was used as an interview tool to focus interviewee thoughts and narrative, and the additional detail described above was added as part of the analysis. In most cases, the interview detail amended the start point for the organisation to be earlier than the incorporation date shown in accounting paperwork. Using a semi-structured interview approach, questions were asked to probe for further detail where transitional or transformative events were described, in particular where related to business support activity or policy awareness and engagement. The creative process was not the primary focus of the interviews and the interview schedule did not explore this. The timeline above was also used to provide the background to and framework for a narrative description of the organisation: its physical location, its position

within the creative industries using existing definitions, and a summary of its journey as described in the research interviews. Anonymity of the case study organisation was also a factor, and this was addressed through careful consideration of the level of detail to present in the written case study.

To map the micro-enterprise ecosystems, the interview transcripts and company accounts documents were reviewed for references to organisations and programmes throughout the business journey. Each instance of an organisation or individual who had worked with the case study organisation was considered an item of data and added to a central tracking document. The data were held centrally to avoid duplication across cases, and each entry was tagged with the case study or studies that applied. The data entries were also tagged with attributes under the following headings:

- Isenberg's domain
- Moore's function
- Holden's role
- Location

Tagging against the ecosystem frameworks of the micro-enterprise required two differences in approach to that followed for the secondary data-driven ecosystem mapping. For Holden's cultural ecology and Moore's business ecosystem, the role or function of a given ecosystem feature in relation to the overall creative ecosystem was used as the primary defining approach, and not its role or function in relation to the case study site. This decision was taken after it became clear that the purpose (function or role) of the ecosystem feature could differ, depending on whether it was seen in relation to the sector ecosystem or to the case study micro-enterprise. The overall system approach was used at this point, anticipating that the function of a node could also differ across case studies and this would add further complication. The issues related to this debate are discussed in some of the case study detail in chapter seven. Conversely, the allocation of Isenberg's entrepreneurial ecosystem domains were much clearer when considered in relation to a single organisation, so this approach was adopted throughout the case study data tagging process. This differed from the map above driven by secondary data sources

which considered multiple domains to be possible. The issues arising from this are picked up in the methodological reflections section of this chapter below.

'Location' refers to whether the list entry was in the same region as the case study organisation [regional], a different region to the case study but UK focused [national], or an international body [international]. Local scale was not used in this analysis so that, as above, the study could maintain the 'creative ecosystem' of the region as the primary focus, and not be drawn in to the connections within a local area. However, this local focus has been held as a potential future area for developing the work. This mapping process was not intended to reveal new connections, as all of the ecosystem features were drawn from sources already linked to the case study site. Instead, this part of the process was designed to group the existing and emerging data into the theoretical frameworks, and to establish whether this view of the data revealed any insights into the shape of the micro-enterprise ecosystem. Case studies were then written up, incorporating narrative and visual approaches to the data, and a draft document was sent to each participating organisation with a request for comment and changes. This was requested by email although the opportunity to arrange a telephone call to discuss this was also offered. None of the case studies took up this opportunity, and there were no requested amendments to the written versions which are presented in chapter seven.

The final element of analysis was a comparison of the secondary data driven maps, the stakeholder reflections and the combined case study data. This showed not only the ways in which micro-enterprises negotiated the larger creative ecosystem, but also the additional elements of a micro-enterprise ecosystem that had not been mapped in earlier stages. This led to the concluding chapter of the study which brought together the reflections from each stage and considered messages across the research.

c) Methodological reflections

Without straying into the details of the findings, a major intermediate outcome was that the various entrepreneurial ecosystem and cultural ecology frameworks did not mesh sufficiently to develop a single meta-framework of an ecosystem. Consequently, the process of applying the conceptual framework(s) had to be fluid and flexible, although this

was not an overtly grounded-theory based study, and this affected the timescales of each stage of investigation. To illustrate this further, the initial mapping stage based on secondary data was intended to be a straightforward exercise that set a further frame for the interviews and case studies. In practice, this became an extended process of applying and testing the various ecosystem approaches to a set of live data. The extensions to the timescale for this stage were necessary to provide a frame for the rest of the research. This in turn had an impact on the stakeholder interviews, which had initially been expected to include more of a confirmatory test of the map and conceptual framework; in contrast the expected confirmatory focus became much more strongly a ‘more different lens’ on the ecosystem to be set out and explored. These amendments to the research plan were considered part of the richness of the approach, although a frustration in planning and scheduling terms.

Alternative approaches could have included surveys or focus groups to explore the usefulness of the ecosystem concept. However, without first identifying and marking out in some way what this ecosystem comprises, the discussion would not have been clearly focused and the results unlikely to be as useful as the stakeholder validation interviews. For stage 3, applying the ecosystem frameworks to the micro-enterprise data also required differences in approach to that taken for the mapping approach using secondary data which have been described above. This indicates some important areas in which to refine the model should this type of study be repeated.

Consideration was also given to alternative methods that replicated the ecosystem and ecology approaches discussed above. Markusen’s mapping of the Californian cultural ecology (2011) used a range of quantitative data sets and qualitative approaches that would have been difficult to replicate in the UK context within the confines of this study, so this was not taken up as an option here, although the debates on definition were useful. Jeffcutt’s (2004) regional study of knowledge relationships and transactions used large scale survey approaches, which might have been possible within the framework of this study. However, the creative ecosystem analogy emerged alongside Jeffcutt’s analysis, and was not the focus of the study itself. Holden’s work (2015) proposed the possibility of using network diagrams to map the cultural ecology, and social network

mapping was considered as an option for analysis in this study. However, as Holden also pointed out, the network of connections that was likely to be produced would have been too dense to be meaningful despite the importance of interactions and relationships to the ecosystem.

This chapter has set out how empirical data on the cultural and creative industries was gathered and categorised, in order to create three mappings of the creative ecosystem. The findings of these approaches are presented and discussed in chapters four, five, six and seven.

4) Theory into practice: *simple is never that simple*[3]

This findings chapter examines the theoretical framework of the ecosystem using live data on the creative and cultural industries, gathered as set out in the methodology chapter above. In this way, the study builds a secondary data-driven mapping of the UK creative ecosystem from a 'top-down' perspective. The chapter reports against three ecosystem approaches which form the conceptual framework for the study:

- Moore's business ecosystem (1996),

- Isenberg's entrepreneurial ecosystem (2011), and

- Holden's cultural ecology (2015).

Each of the theoretical frameworks above are mapped in turn, exploring the balance of component parts. The conceptual usefulness of these ecosystem constructs forms the focus of discussion. This process suggests some complementarities but also substantial disparities between the three approaches. The chapter closes by discussing the extent to which it is possible to generate a 'meta-ecosystem' approach from relationships in the data across all three individual ecosystem frameworks.

a) Mapping the ecosystem using theoretical frameworks

The business ecosystem (Moore)

Moore is largely credited with being the first to use the term 'ecosystem' in the business context, and the classification sheet tracked which of Moore's business ecosystem roles were fulfilled by an organisation. Each entry in the classification sheet was tagged with the most appropriate description from Moore's model. A single attribute was allocated to each of the entries in the classification sheet, and where more than one function could have been applied, the most dominant of these was selected. Figure 4.1 below sets out the relative frequencies of Moore's business ecosystem functions

[3] Roth, P. (1997) *American Pastoral* Boston: Houghton Mifflin

attributed to the organisations captured within the first approach to mapping the creative and cultural sector, and briefly discusses each function in turn before summarising the business ecosystem approach as applied to creative and cultural industries in this way.

This process revealed a potential weakness of applying Moore's typology to the ecosystem overall because the definitions, whilst broad, are generated from the perspective of a single organisation (inside-out) and not the industry or sector overall (outside-in), as noted in chapter two. This dual-perspective issue emerged early on in the process when considering the mapping framework. Whilst the majority of the 'function' labels work from either perspective, the *customers* and *competitors* functions are more problematic to apply to this set of 'top-down' data and were seen as secondary functions in relation to the national ecosystem. When mapping this view of the ecosystem, the *customers* and *competitors* functions were not seen as the dominant function of any given organisation, resulting in a zero count for both of these categories. It is likely that all of the database entries are customers or competitors to some extent, but when viewing an organisation in isolation it is difficult to set this out clearly. This further suggests that Moore's functions are useful from the perspective of an individual organisation as part of strategy development (which was its original purpose). From a wider external perspective, no organisation can be a customer of or competitor with the ecosystem as a whole.

FIGURE 4.1: A SECONDARY DATA-DRIVEN ECOSYSTEM VIEW SHOWING MOORE'S ECOSYSTEM FUNCTIONS AND THEIR GEOGRAPHIC COVERAGE, DEVELOPED FOR THIS STUDY

The element of subjectivity is also brought to the *supplier* function in this view of the ecosystem: despite the breadth of the definition, many organisations or other feature of this national perspective were deemed to have *supplier* as their dominant function. As shown in Figure 4.1, the majority of entries in this mapped ecosystem are viewed as *suppliers* to the creative and cultural ecosystem. The organisations or features here deliver goods or services either nationally in the UK (10% of the total ecosystem) or internationally (10%), regardless of their base location. A smaller proportion (3%) are focused on the regional delivery of goods or services. Whilst Moore's definition also distinguishes between direct suppliers and 'suppliers of my suppliers', this version of the ecosystem map takes a 'top-down' perspective, with no specific central organisation in mind. Therefore, it is more difficult to determine the level of directness of any identified suppliers, so the classification approach used a single *suppliers* category. This removes, in part, the distinction made by Moore between a core and an extended enterprise at the centre of the business ecosystem.

Both *government & regulatory* and *stakeholder* functions are well represented in this view of the data. Moore provides a clear definition of the *government & regulatory* function from the perspective of an individual organisation, and this is easy to apply from an external view of the ecosystem. Here the geographic focus of 'provision' was predominantly national, with a smaller proportion of international features, and fewer again at regional level. The *stakeholders* function, largely made up of commercial or private companies, has a definition that spans both the individual organisation and the 'outside-in' ecosystem-wide perspectives. Here the wider perspective is taken and the stakeholders are considered to invest in the ecosystem as a whole. The range of stakeholders in this view of the creative and cultural ecosystem is broad, and the definition does not provide for any differentiation between the motivations of these stakeholders, nor their relative positions and influence on the ecosystem as a whole. The highest proportion of stakeholders using this mapping approach had a national purview (11%), rather than being internationally or regionally focused.

Moore's *complementor* function, which supplies complementary products and services to the core enterprise, is more frequently represented than the *core contributors*

that should logically be central to the ecosystem. *Complementors* make up 15% of the ecosystem map, with the largest proportion of this being international organisations. Organisations and other features typically tagged as *complementor* include online news services, academic journals (in which papers on search terms were identified) and Trusts and Foundations offering information about or funding to the creative and cultural sector as part of their charitable objectives. Whilst many of these organisations are ancillary to the creative sector, there is no means of showing their significance to the ecosystem using this mapping approach. Moore's function of *core contributors*, considered here to be creators of content, represented only 8% of the total ecosystem, suggesting that this approach does offer a broader view than that of production or supply chains. Despite this study taking a UK focus, half of the features tagged as *core contributor* had international scope to their provision, which could present a significant implication for UK policymakers focused on the productivity of the sector.

Moore considers *distribution channels* to be a further element of the supply and production chain, and in the mapping undertaken here this function is almost as prevalent as the core contributors above (7%). Festivals and receiving theatres represented typical examples of *distribution channels*, and these were more prevalent at regional level in this mapping than at international. This could be important in considering how creative products and services reach customers and consumers. Moore's function of *standards body* includes organisations representing customers and suppliers, as well as those setting and enforcing professional standards across the industries, which broadens the scope of what might be expected within this category. This was the least frequently used tag, representing only 3% of the overall ecosystem in this model. There were no regional organisations in this category, and slightly more national than international. This brings in an additional consideration of the significance of any given ecosystem feature. For example, with the function of *standards bodies* in mind, it may be entirely reasonable to expect fewer organisations with wider remits fulfilling this function. In this mapping approach there are fewer organisations, seemingly with a national remit. The framework does not make any provision for this aspect and the mapping methods used have no means of showing whether or not this 3% figure is in proportion.

For the purposes of this investigation, the major drawback of Moore's business ecosystem stems from its origins – and strength - as a tool for individual organisations to consider their strategic approaches. This means that the organisation's relative position within the ecosystem is considered, but using Moore's functions alone from a top-down perspective means that the overall shape and composition of the ecosystem is not fully mapped, and furthermore that the differentiation between Moore's core and extended enterprise is lost. Moore's approach has no means of showing the significance of, or influence on, ecosystem features to the whole. There is no provision for or discussion of what relative proportions the ecosystem should have between functions. Moore's approach has no means to differentiate between the motivations and drivers of ecosystem features, which may cause conflict for the organisation at the centre if their own motivations are in opposition. Using this framework to map the creative ecosystem further revealed that:

- Suppliers (23%) and government and regulatory functions (21%) formed the most prevalent aspects of this mapping of the system.
- International elements are most significant in areas around creative content makers, their suppliers, and complementary services, which could be important for policy and economic understandings.
- Moore's *distribution channels* function has the highest proportion of regional features in this view of the ecosystem, which may suggest that *access* to the creative and cultural product or service takes place at a regional level despite the *creation* taking place internationally in this model.

The entrepreneurial ecosystem (Isenberg)

Isenberg's entrepreneurial ecosystem, in contrast to Moore's, takes an 'outside-in' perspective, building an overview of the ecosystem as a whole through six domains. Where an organisation or initiative was deemed to provide support or resources within a particular domain, this was tracked in the classification sheet. Again, in contrast to the business ecosystem above, this tracking approach considered that multiple entries were possible because this approach offers an 'outside-in' perspective of the ecosystem overall and a single feature in this view of the ecosystem might occupy, and thus be tagged with, more than one of Isenberg's domains. Figure 4.2 below identifies the prevalence of each ecosystem domain using Isenberg's 2011 definitions.

This visualisation of the ecosystem shows a strong presence of Isenberg's *markets* domain. Isenberg's definition covers customers, networks and distribution channels, which are thus well represented in the sources used to develop this map of the ecosystem. From a traditional economics point of view, the representation of customers in the ecosystem would be expected. From an ecosystems point of view too, it would be logical to expect networks and distribution channels to feature strongly in a system that is fundamentally relational. What this view of the *markets* domain cannot show, however, is the breakdown within this category – Isenberg's definition groups together customers and networks, and this view cannot tell us which of these is more prevalent or more important. It is also useful to note that this domain has the highest proportion of international features (16%), which may have an implication for the flow of creative content, profit or talent into and out of the creative ecosystem.

FIGURE 4.2: A SECONDARY DATA-DRIVEN ECOSYSTEM VIEW SHOWING ISENBERG'S ECOSYSTEM DOMAINS AND THEIR GEOGRAPHIC COVERAGE, DEVELOPED FOR THIS STUDY

Figure 4.2 shows that the *support* category (defined by Isenberg as infrastructure, support professions and non-governmental institutions) is also well represented in this mapping approach. This follows logically from the strength of the markets domain, in that, if networks and distribution channels are strong, there needs to be an infrastructure to support them. The majority of features or organisations acting in this domain were at national level (11%) and those with international focus were the least frequently occurring (4%), which contrasts with the geographic balance across the *markets* domain above and could also be considered in the question over flow highlighted above. Does the strong presence of a national infrastructure maximise the benefits of international markets?

Policy (leadership, government institutions, financial support, regulatory framework incentives, research institutes and venture-friendly legislation) organisations represent almost a sixth of this ecosystem map (18%), with the majority of features being national (9%) and international (8%). Public finance offers are categorised by Isenberg within this domain rather than *finance*, which serves to underline the arts ecology / creative economy separation given the substantial role of public finance in the sector (Fleming and Erskine 2011). The wide range of aspects covered within this domain reflects the breadth of possibilities for policy support, but Isenberg's approach does not offer any means of differentiating between the component elements that make up his definition of this domain. This presents a challenge in reviewing the map of the ecosystem. From this visualisation it is not possible to say with clarity whether, for example, there is sufficient regulatory incentive or too much. The model offers no scales for measurement nor targets for metrics. There is a further complication when using this approach for a compound industry sector, as there are likely to be policy approaches specific to sub-sectors. Despite Isenberg's statements to the contrary, context and industry specificity is important in applying the model.

The *human capital* domain, covering workforce, education and training, is the next most frequently attributed, representing 16% of this ecosystem. As with the *markets* domain, this covers a broad spectrum of roles and organisation types, and it is difficult to develop a more detailed understanding of the importance of this domain without further data. It is worth noting that this represents 16% of the overall ecosystem map using this

model, and that again this is dominated by organisations with an international focus (8%) and at national UK level (7%). Higher Education Institutions (HEIs) form a large proportion of the organisations tagged in this domain, and these are classified as having an international focus for provision. Without further investigation, it is difficult to determine the extent to which this internationalisation affects the regions in which HEIs are based, and also the extent to which the HEIs in a region are connected to the micro-enterprises around them, which links to existing strands of entrepreneurship investigations (Rantisi and Leslie 2015).

There was a stronger regional presence in the *culture* domain, defined by Isenberg as containing 'visible successes and societal norms'. Success and normality is subjective, and the tagging approach here used researcher knowledge of the sector as well as the type and function of the organisation as indicators of the success or 'cultural norm' status. National institutions such as museums and orchestras were tagged within this domain, as were festivals and large arts centres, which were considered to represent societal norms by facilitating access to culture. This category was problematic to apply until an element of sector-specificity had been considered, despite Isenberg's note that this approach is deliberately not industry or sector specific.

The *finance* domain, within which Isenberg includes venture capital, private equity, debt finance and public capital markets, is the least well represented in this phase, mostly at national scale. This suggests that if this element of support does exist in the ecosystem, it is not well represented in the literature and online searches. It is possible that the small proportion of financial institutions represented here offer sufficient resources to sustain the ecosystem. However, there is significant discussion elsewhere of the 'risky business' line of argument seen in academic discussion on the creative industries (Hesmondhalgh 2007, Burrows and Ussher 2011), and the limited financialisation within this sector (Fraser and IFF Research 2011). This line of argument is supported by the secondary data-driven ecosystem map.

In summary, Isenberg's entrepreneurial domain definitions are broad, and further consideration of organisation type or function was frequently useful to determine which

domains were most appropriate. The breadth of Isenberg's definitions also made it difficult to determine whether particular aspects within each domain were over- or under-represented. As seen with Moore's business ecosystem above, this approach does not allow for the significance or influence of any one domain or the organisations within it.

Applying this approach to the cultural and creative industries suggests that:

- The creative ecosystem is more significantly populated by markets and their infrastructure than by policy and finance organisations.
- The markets domain is heavily international which may have an impact on the flow of money and content out of the system.
- This mapping suggests limited financialisation of the sector.
- The prevalence of internationally focused organisations in the human capital domain may merit further investigation to explore whether and how these organisations also link to the creative micro-enterprises within a region.
- Despite the intention for this model to be general rather than sector-specific, the application requires some contextualisation in order to pin down definitions of domains.

The cultural ecology (Holden)

As the first specifically cultural application of an ecological metaphor, the classification sheet also set out to track which of Holden's cultural ecology roles (2015) were fulfilled by the organisation or features captured in the mapping using secondary data. Holden outlined four roles, each performing particular functions: the *guardian* of culture, *platforms* (for access to culture), *connectors* within the system, and *nomads,* who "move energy around the ecology" (2015: 30). Figure 4.3 below shows the breakdown of these roles across the organisations and features in this view of the ecosystem. This visualisation shows that more than half of the data was categorised as 'not applicable', because it fulfilled none of Holden's proposed roles in the system. This suggests that there may be a wider range of roles in the creative ecosystem than are captured by Holden's cultural ecology. Within the group of organisations and features that had no specific cultural ecology role, the majority were internationally or nationally focused. Organisations tagged as not applicable included Higher Education Institutions, regional and city councils, and business support programmes, suggesting that the cultural ecology model may be overlooking the relevance of business, education and local policy, or that the existing definitions supplied by Holden need further detail in order to capture these elements.

The most frequently occurring attribute was that of *connector*, described by Holden as the production and administration of cultural content and the resources to create this. In itself, the prevalence of this type of role is not unexpected, but without further data on, or insight into, the organisation functions within this category, it is difficult to determine the scope of the *connector* role. Where business support programmes were specifically focused on the cultural and creative sector they were categorised as *connectors*, but where generic programmes appeared in the data this was tagged as *not applicable* to the cultural ecology. This may be a looseness of definition, suggesting, as above, that further detail is required when categorising and applying this model. Within this segment the majority of mapped connections were national (9%), with roughly equal international (6%) and regional (6%) connections.

FIGURE 4.3: A SECONDARY DATA-DRIVEN ECOSYSTEM VIEW SHOWING HOLDEN'S CULTURAL ECOLOGY ROLES AND THEIR GEOGRAPHIC COVERAGE, DEVELOPED FOR THIS STUDY

Platform was the next most frequently tagged attribute, which Holden classifies as any space or venue that hosts cultural content. Holden further notes that *platforms* "exist across all funding models and can be owned and run by charities, local authorities, voluntary groups, large and small commercial organisations, and individual business owners" (2015: 30). Applying this category required more detailed contextual insight than organisation type alone. The majority of these connections (6%) were regionally focused in their scope, which tallies with the observation on Moore's *distribution channels* above and suggests that there could be some agreement in approach to these categories.

There were fewer organisations / features tagged with the role of *guardian*, which could suggest that this role is not well addressed in this view of the ecosystem. However, the majority of the organisations in this category have national coverage and may have significance within and across the ecosystem. This approach to the cultural ecology, as with the business and entrepreneurial ecosystem approaches above, does not reveal the reach and significance of a given organisation within the ecosystem. Whilst Holden eschewed network mapping as overly complex, this alternative or additional approach would go some way to addressing this point.

The small number of organisations classified as *nomad* – defined by Holden as the demand side of culture (2015) - is also worth noting. In this mapping, organisations fulfilling the role of *connector* appear ten times as often as those acting as *nomad*. This could suggest that the cultural ecology is lacking in cultural consumers, or alternatively that the approach taken to mapping (top-down) is failing to capture these smaller scale organisations or individuals. This supports the observation made at the beginning of this study in relation to micro-enterprises - that they are falling through data collection gaps and thus under-represented in official statistics and policy-making approaches. It is also interesting to note the significance of internationally focused organisations in this category, which may align with the observations on Moore's *core contributors* function and Isenberg's *markets* domain.

Overall, the ecology approach is useful for capturing specifically cultural roles, but as shown by the large proportion of *not applicable* tags, there may be a wider range of

relevant roles to consider in the creative ecosystem. This cannot be revealed without access to further data such as organisation type or sub-sector, as also seen in Isenberg's framework above. In addition, the process of applying culturally specific roles required a greater level of contextual knowledge than either of the preceding models. There are a relatively small number of roles in this framework model, which could be argued to oversimplify the approach to categorisation. The roles-based view of the cultural ecology cannot fully indicate the significance of organisations within the overall map, and as with the other frameworks discussed above, smaller numbers might not mean less importance to the system overall. Similarly, frequency of occurrence might not indicate significance. Taking a cultural ecology approach in particular highlights that:

- The prevalence of business, education and local policy organisations within the *not applicable* category suggests that the model may be overlooking the relevance of these areas to the cultural ecology.
- The *platform* role is predominantly regional in scope in this map, suggesting that access to culture is largely regional.
- Cultural consumers, audiences and individual creators are not well represented in this view of the ecology, supporting the observation that they are under-represented overall.

b) Key features and limitations of the theoretical approaches

The analyses above take individual theoretical frameworks in turn, and in each case, they show that the ecosystem 'map' is not evenly balanced across the component parts. Whilst there have been no published applications of the three typologies and thus no recommended balance across the component parts, a functioning ecosystem should be expected to feature all of its components to some extent, so a zero count against any element could signal a problem in either the ecosystem or the method used to map it. There is no literature suggesting that an even balance across the ecosystem elements is the ideal end point, so the question of balance, and relative importance, is an area for further exploration. None of the models offer a means of mapping the interactions between their component elements, so it is difficult to determine the effects of push or pull interactions on any given component. The same applies to elements within component parts, as some of the definitions are very broad. The geographic aspects noted above should be considered as indicative only, as this aspect would need mapping with much more detail and complexity in order to draw firm conclusions. Overall the top-down ecosystem is national and internationally focused, with a smaller proportion of features targeting regional elements.

Table 4.1 below sets out the headings used within each of the three theories, in descending order of frequency based on their proportional representation in the ecosystem visualisations above. Toward the bottom of Table 4.1 are the categories that are less frequently represented in the top-down ecosystem mappings discussed above. This indicates that market and supply chain aspects are well represented in this view of the system, as are policy related organisations and features. Less well represented are the consumers and creators of culture, and external or private sector sources of finance. Low representation does not in itself mean low significance, as one organisation could have major influence in the system. This is most relevant when considering the limited private finance provision and *standards bodies* categories above. However, across all three frameworks the creators and consumers of content (Holden's *nomads*, Moore's *customers* and Isenberg's *culture* domain), and Moore's *competitor* role are not strongly represented, and these are areas in which it would be reasonable to expect higher

numbers of individual organisations. This brings about the observation that none of the models discuss this issue of representation and balance, nor do they offer any means of capturing the particular significance of any given organisation or feature within the system.

Percentage of individual ecosystem approach	**Moore's business ecosystem functions**	**Holden's cultural ecology roles**	**Isenberg's entrepreneurial ecosystem domains**
31% +		Not applicable	
26 – 30%			Markets
21 – 25%	Government and regulatory Suppliers	Connector	
16 – 20%	Stakeholders		Human capital Support Policy
11 – 15%	Complementors	Platform	
6 – 10%	Core contributors	Guardian	Culture
1 – 5%	Standards bodies	Nomad	Finance
0%	Customers Competitors		

Table 4.1: Relative proportions of categories across each ecosystem framework, developed for this study

The summaries of the individual approaches above, and the comparisons emerging from Table 4.1, identify some areas in which it could be useful to cross-reference the framework approaches, which is explored further in the section below.

c) Toward a meta-ecosystem?

This section explores whether a richer conceptual picture can be drawn of the ecosystem by cross-referencing the data within each of the three selected approaches, as shown below, to explore correlations and conflicts between definitions. This cross-referencing aims to establish whether there is agreement between any of the definitions, as well as areas in which one framework might expand the understanding of another.

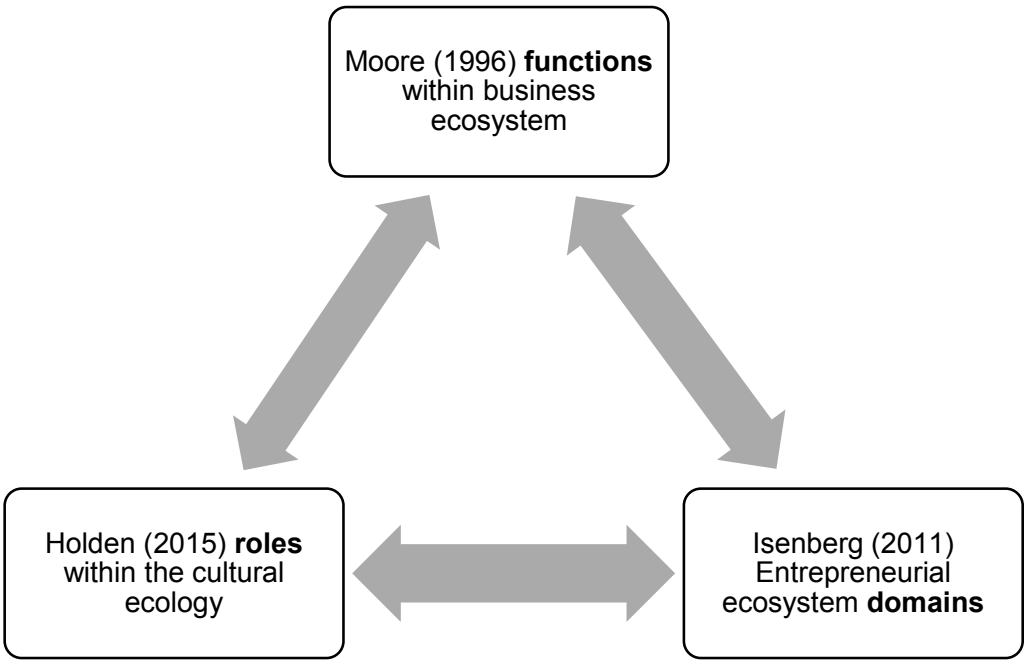

FIGURE 4.4: PLAN FOR COMPARING THEORETICAL APPROACHES TO THE ECOSYSTEM, DEVELOPED FOR THIS STUDY

This phase of the comparison process counted the number of classification sheet entries tagged with both Moore function #1 AND Isenberg domain #1, moving to Moore function #1 AND Isenberg domain #2, and so on. The mean value for each paired table (Moore – Isenberg, Moore – Holden, Holden – Isenberg) was established and this formed the lower baseline for establishing the strength of the relationship. As with tables above, percentages are used here to aid comparison. Table 4.2, below, demonstrates the relative strength of association between the three theoretical areas of the ecosystem, and maps

the indicative significance of each pairing using a colour scale (Kirk 2016). The shading is stronger the more frequently the count above the mean.

Table 4.2: Heat map comparing indicative significance of relationships between ecosystem components

Table 4.2 shows a number of stronger relationships across the business and entrepreneurial ecosystem categories which are highlighted above. The strongest of these relationships are summarised below.

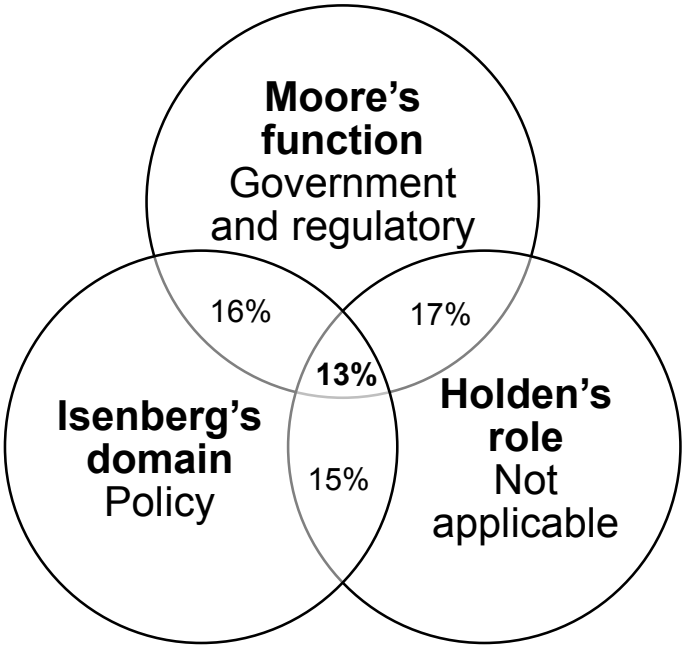

FIGURE 4.5: AGREEMENT BETWEEN CATEGORIES: POLICY / GOVERNMENT & REGULATORY / NOT APPLICABLE, DEVELOPED FOR THIS STUDY

Exploring the data for relationships in this manner shows that Moore's *government and regulatory* function has only one correspondingly significant category, Isenberg's *policy* domain, where 16% of the ecosystem classification sheet entries were tagged with both of these attributes. This suggests a strong agreement in the definitions of both categories. Classification sheet entries classed as *policy* and *government and regulatory* were also tagged as *not applicable* in Holden's cultural ecology (15% and 17% respectively). This suggests that, whilst the top-down ecosystem mapped from secondary data does feature government and policy related organisations, the cultural ecology approach may have limited means of representing these aspects of the ecosystem.

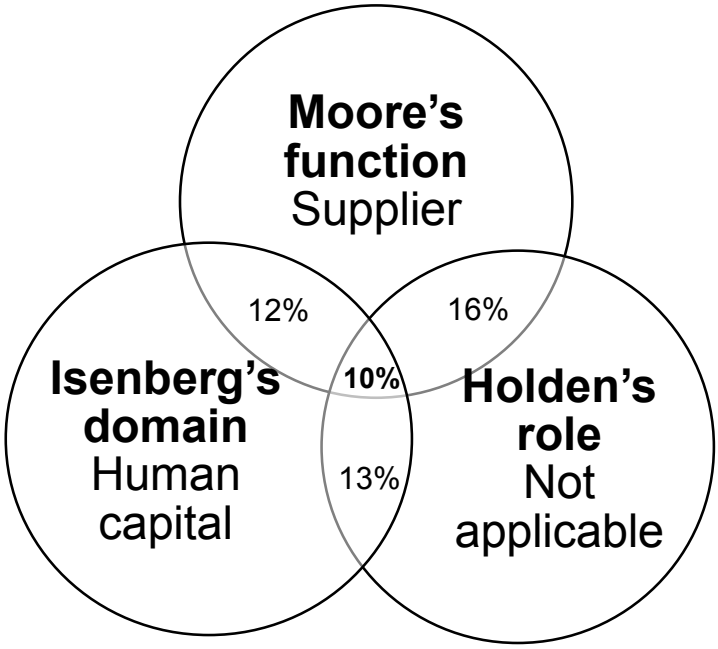

FIGURE 4.6: AGREEMENT BETWEEN CATEGORIES: HUMAN CAPITAL / SUPPLIER / NOT APPLICABLE, DEVELOPED FOR THIS STUDY

Within this secondary data-driven map of the creative ecosystem 12% of organisations are tagged with Moore's *supplier* function and Isenberg's *human capital* domain. This is a strong overlap that could be considered logical if education and training are deemed to be supply issues relevant to the ecosystem overall. The *supplier* function also has a strong (but not above average) relationship to the *markets* (7%) domain, which, definitionally, is also a logical relationship. Again, when linking these categories to Holden's cultural ecology, the majority of organisations tagged as *supplier* and *human capital* were tagged as not applicable (16% and 13% respectively). As with the observation above, there is some shared definition between the Moore and Isenberg approaches here but the cultural ecology has limited means of representing these elements.

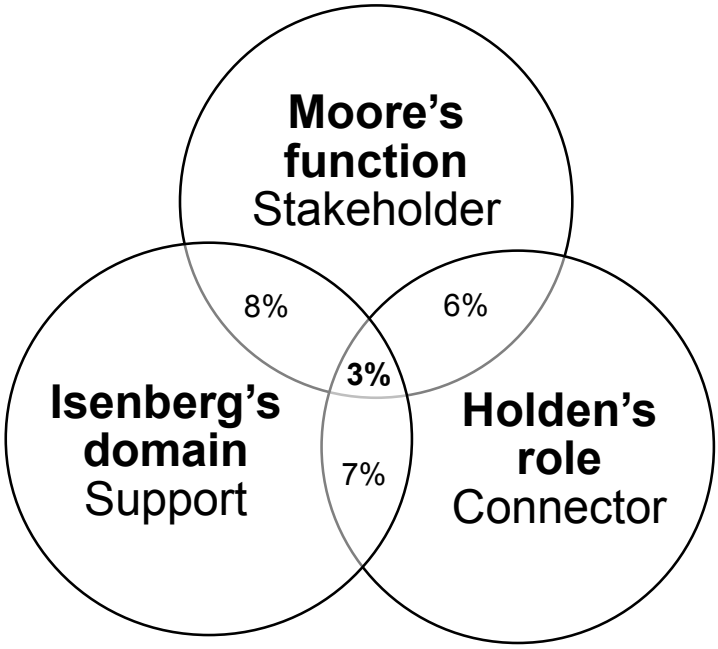

FIGURE 4.7: AGREEMENT BETWEEN CATEGORIES: SUPPORT / STAKEHOLDER / CONNECTOR, DEVELOPED FOR THIS STUDY

The next most frequently co-existing relationship is observed across a much smaller set of connections across Holden's *connector* role, Moore's *stakeholder* function and Isenberg's *support* domain. 3% of organisations or features in the top-down ecosystem map were tagged with all three of these attributes. None of the pairings within the three categories were exclusive, which means that whilst 8% of organisations tagged with the *stakeholder* function were also tagged within the *support* domain, there were more *stakeholder* organisations tagged against another of Isenberg's domains. This is the first set of connected attributes that does not include the *not applicable* category in relation to Holden's cultural ecology. This suggests firstly that the cultural ecology recognises elements of the stakeholder and support infrastructure across the creative ecosystem, and secondly that there is recognition of a culturally relevant role within both Moore's and Isenberg's frameworks. In exploring these suggestions further it is important to query the extent to which this is specific to the cultural and creative sector.

Exploring the zeroes

The presence of zero counts in the heat mapping above suggests that none of the ecosystem approaches above fully represents the creative ecosystem as it currently exists. If they did, the categories they used would all have some element of content. Two further sets of relationships, whilst not a high proportion of the heat mapping above, are important to note, because they are related to the high number of zeroes in the heat mapping above. These two areas emerge when reading across from the *nomad* role in Holden's cultural ecology and the *finance* domain in Isenberg's ecosystem.

Isenberg's domain	Moore's function	Holden's role
Markets Culture	Core contributor	Nomad

Table 4.3: Agreement between categories: Markets and Culture / Core contributor / Nomad, developed for this study

Viewing Holden's *nomad* role as the independent variable, this category exclusively maps to Moore's *core contributor* function – all of the organisations tagged as *nomad* are also tagged as *core contributor*, so a relationship between the two is presumed here. However, reversing this and using Moore's *core contributor* function as the independent factor shows that there are patterns of association across all of Holden's roles and most significantly with the *platform* role rather than *nomad*. Again, when observing the *nomad* role as independent in relation to Isenberg's ecosystem, there is an even split between the *markets* and *culture* domains. Conversely as above, when *nomad* is viewed as a dependent variable the presumed relationship disappears. Both the *markets* and *culture* domains include organisations tagged across the breadth of Holden's ecology, again more significantly linked to the *platforms* role. Whilst the figures here are small in relation to this mapping of the ecosystem, and this is not a full approach to a contingency analysis, this suggests that there is no contingent relationship between these categorisations.

Isenberg's domain	Moore's function	Holden's role
Finance	Stakeholders	Connector
	Government and regulatory	Not applicable

Table 4.4: Agreement between categories: Finance / Stakeholders and Government & regulatory / Connector and not applicable, developed for this study

Isenberg's *finance* domain only connects to the *stakeholders* and *government and regulatory* functions of Moore's ecosystem, and to the connector role and the *not applicable* tag (with which the relationship seems very strong and this is explored further below). However, as with the example above, this set of relationships is one way. Both of Moore's functions highlighted here have links to all of Isenberg's domains to a greater or lesser extent. Moore's *stakeholders* function has its strongest connection to the *support* domain, and Moore's *government and regulatory* function has a stronger relationship with Isenberg's *policy* domain.

Exploring the not applicable category

Unpacking Holden's 'not applicable' category reveals that organisations tagged with this attribute feature across all of Moore's functions and Isenberg's domains to varying extents. This supports the suggestion that the ecosystem approaches capture a broader range of related organisations and structures than Holden's cultural ecology approach. It further suggests, alongside the observations above, that the cultural ecology model does not adequately reflect the breadth of the top-down secondary data-driven mapping approach.

d) Top-down ecosystem mapping: a summary

This section of the chapter has refined the theoretical framework for the study, based on a comparison of three ecosystem / ecology theories using creative and cultural sector data. Initially this phase was designed as a relatively quick process of mapping the ecosystem by placing organisations within each of the Isenberg domains, Moore's business ecosystem functions, and Holden's cultural ecology roles. It became a more involved process that highlighted both the overlap and potential limitations of these conceptual frameworks, including their potential application to a specific industry sector.

Moore's business ecosystem originated as a tool for individual organisations to consider strategy, which means that the organisation's relative position within the ecosystem is well captured. However, for the purposes of this investigation this framework does not fully map the overall shape and composition of the ecosystem. Applying Moore's approach from a top-down perspective loses the differentiation between the core and extended enterprise that was part of the original approach. Taking this perspective also creates difficulties in reflecting the categories of *customer* and *competitor* which are important to the overall ecosystem but easier to map from the perspective of a single organisation.

Whilst Isenberg's framework was posited as innovation-focused rather than sector-based, applying the model in practice required contextual information in order to assign appropriate categories to entries in the ecosystem map. This context related to the organisation type or function, and knowledge of the sector came into play here, suggesting that some level of sector specificity is useful to help navigate through the broad definitions of the domains in Isenberg's system. These broad definitions also made it difficult to determine which part of an individual domain was dominant. There were limited connections to private finance initiatives and institutions in the top-down mapping, which may suggest a conflict with the economic significance of the sector.

Some of the specific aspects of the cultural ecosystem are usefully captured by Holden's ecology model, but the large proportion of *not applicable* tags suggests that this framework may not fully reflect the breadth of the system overall. This is particularly

significant when considering that a large proportion of those organisations tagged *not applicable* are within the business, education and policy areas. This may suggest that the cultural ecology approach does not fully capture the distinctions between these areas.

The inclusion of high-level geographic data offers some indicative points for further exploration. Access to culture has a regional bias, suggested by Holden's *platform* role and Moore's *distribution channel* function, which contrasts with the high percentage of *markets, core contributors* and *suppliers* that are internationally focused.

None of the constructs individually offers a full and nuanced understanding of the ecosystem, exemplified by the zero counts against some categories as noted above. There is no literature suggesting that an even balance across the ecosystem elements is the ideal end point, so the question of balance, and relative importance, is an area for further exploration. In this view of the creative and cultural ecosystem the stronger positive relationships are between Moore's and Isenberg's typologies, suggesting that these have more robust connections and clearer definitions. However, this is not seen across the whole range of component parts and the core producers of creative content remain largely underrepresented. Taken together, there are clear positive relationships between some components of the constructs in this mapping, but this does not extend to contingent relationships between the definitions. Overall there is no systematic overlap between categories that allows a meta-ecosystem approach to be developed that takes into account all three frameworks. Chapter two noted that to date there has been no attempt to define creative ecosystem components as there has been in business and entrepreneurial approaches. The implication of this analysis is that there is no meta-system from blending three theoretical approaches in this manner. Mapping from the ground-up does seem a valid activity in order to expand an understanding of the potential usefulness of the ecosystem approach.

Overall, these theoretical approaches are useful for considering the breadth of roles, functions and component aspects of a given sector. The process of using live data to map an ecosystem has revealed some of the practical drawbacks of the approaches. Whilst there is agreement between some of the components within the theoretical

ecosystem frameworks, there are limitations when applying these categorisations to ‘live’ data. Contextual knowledge played an important part in the practical application of each framework, with Moore’s business ecosystem needing least sector understanding, and Holden’s the most. The range of organisations and features in this top-down view of the creative and cultural ecosystem is broad, and the definitions used do not allow clear differentiation between their motivations and significance. Moving in to the next phase it is important to note that this approach to mapping the ecosystem gives a partial picture which, as a construct for understanding and representing the sector, is currently weighted in favour of policy. Using known data about the creative industries may help to illustrate more specifically the ways in which this mapping approach over- and under-represents particular elements of the ecosystem. This may help to better understand the issue of balance noted above.

5) The bird's eye view in context

This chapter compares the emerging creative ecosystem from chapter four above to existing data on the sector, using sub-sectors and geography as the main reference points where data exists at national level. This section examines the extent to which the top-down view of the creative ecosystem can be seen to be representative of the sector when compared to this national perspective. The chapter also asks whether this ecosystem approach changes the perspective on these known and established ways of looking at the creative industries. To achieve this, industry-specific data is used, whilst being mindful of Moore's point that "a business ecosystem does not respect traditional industry boundaries" (1996: 28). The chapter closes with an overview of the findings of, and reflections on, this stage of research, and introduces the importance of verifying these insights with sector stakeholders.

a) The context of known data on the industries

The classification sheet for the study collected data on the Standard Industrial Classification (SIC) code, creative industry sub-sector and geography of each entry (both physical location and the target area of provision or coverage). For those organisations fact-checked against data in the Companies House registry[4], it was possible to confirm the primary SIC code as submitted by the organisation themselves. For the remainder, the classification sheet tracked the closest possible match through allocation by the researcher. Data on the sub-sector focus and geographic information about organisations within the creative ecosystem were gathered from available information on the organisation. External sources of data on the sector are based on Standard Industrial Classification methods. Official estimates of creative industry sub-sector are based on SIC coding, whereas the ecosystem data does not rely on this link. This study uses the same creative sub-sector area descriptions but has used publicly available information about the organisations to assign this categorisation, and not their SIC code. The industry

[4] https://beta.companieshouse.gov.uk

sub-sector and SIC code are therefore attributed separately in the ecosystem classification sheet developed for this study.

SIC coding

The government definition of the creative industries contains specific SIC codes based on significant (and ongoing) discussion of creative occupations and creative industry activity. The SIC code data gathered in the classification sheet for the creative ecosystem was spread across a broader range as shown in Figure 5.1 below. This shows a frequency count across the top thirty most frequently allocated SIC codes in the data, with the SIC codes considered to be part of the creative industries marked in bold. Appendix 5a details the full list of SIC codes that make up the creative industries for the purposes of official economic estimates, and appendix 5b contains a full table of the primary SIC codes gathered through stage 1 of this study, together with a frequency count.

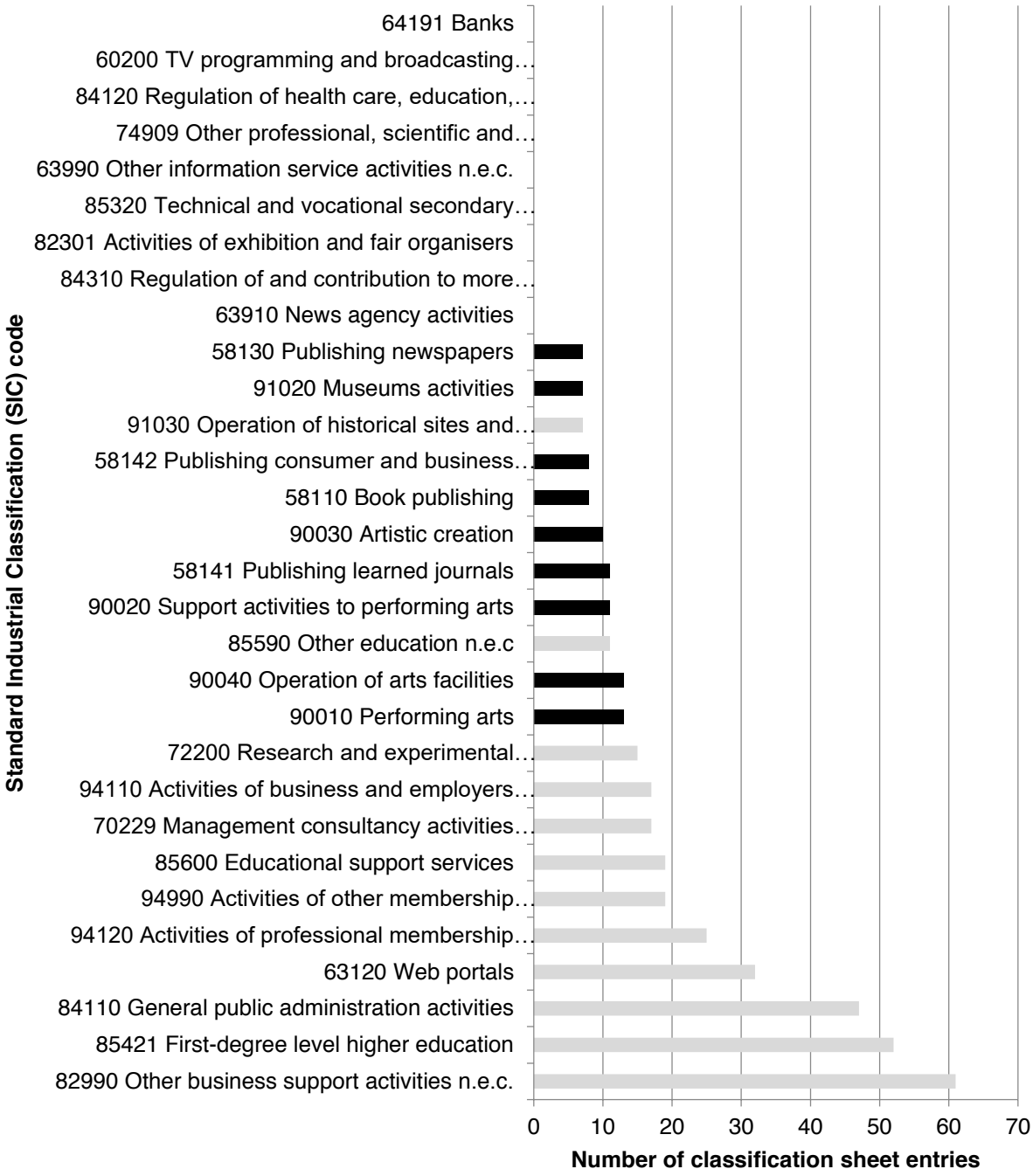

FIGURE 5.1: MOST FREQUENTLY CITED SIC CODES ACROSS THE CREATIVE ECOSYSTEM, WITH CREATIVE INDUSTRIES CODES HIGHLIGHTED, DEVELOPED FOR THIS STUDY

In the figure above, the SIC codes that correspond to the DCMS definition are marked in bold, showing that the majority of codes prevalent in the secondary data-driven ecosystem map are not classed as part of the creative industries for the purpose of official economic estimates and workforce statistics. This also suggests that the secondary data-driven ecosystem approach does not cover the full range of creative sectors, which will be examined further in relation to specific sub-sector areas below. The SIC code data gathered in the classification sheet for the creative ecosystem was spread across a broader range than the government list of SIC codes that make up the creative industries. From the top 30 unique SIC codes captured in the classification sheet, 10 were from the government list of what is considered to be the creative industries. The majority of codes prevalent in this view of the ecosystem are not classed as part of the creative industries for the purpose of official economic estimates and workforce statistics, suggesting that the creative ecosystem – as mapped here – is broader than the current policy definition of the creative industries.

Sub-sectors

As noted above, government reporting uses SIC coding as a means of identifying sub-sectors for statistical purposes. This study used published information about each organisation as well as researcher knowledge to categorise entries in the classification sheet. Figure 5.2 below shows that the majority of references in this view of the ecosystem are not targeted to the creative and cultural industries and may therefore represent wider elements of business support or infrastructure. This aligns with the SIC codes revealed in the creative and cultural ecosystem (Figure 5.1 above). This contrasts with the observation made in chapter four that a ‘compound’ sector such as the creative industries might present a problem for mapping approaches related to policy due to sub-sector variation. Examining the sub-sector elements of this ‘top-down’ mapping suggests that the creative ecosystem does not strongly support a sector-specific approach.

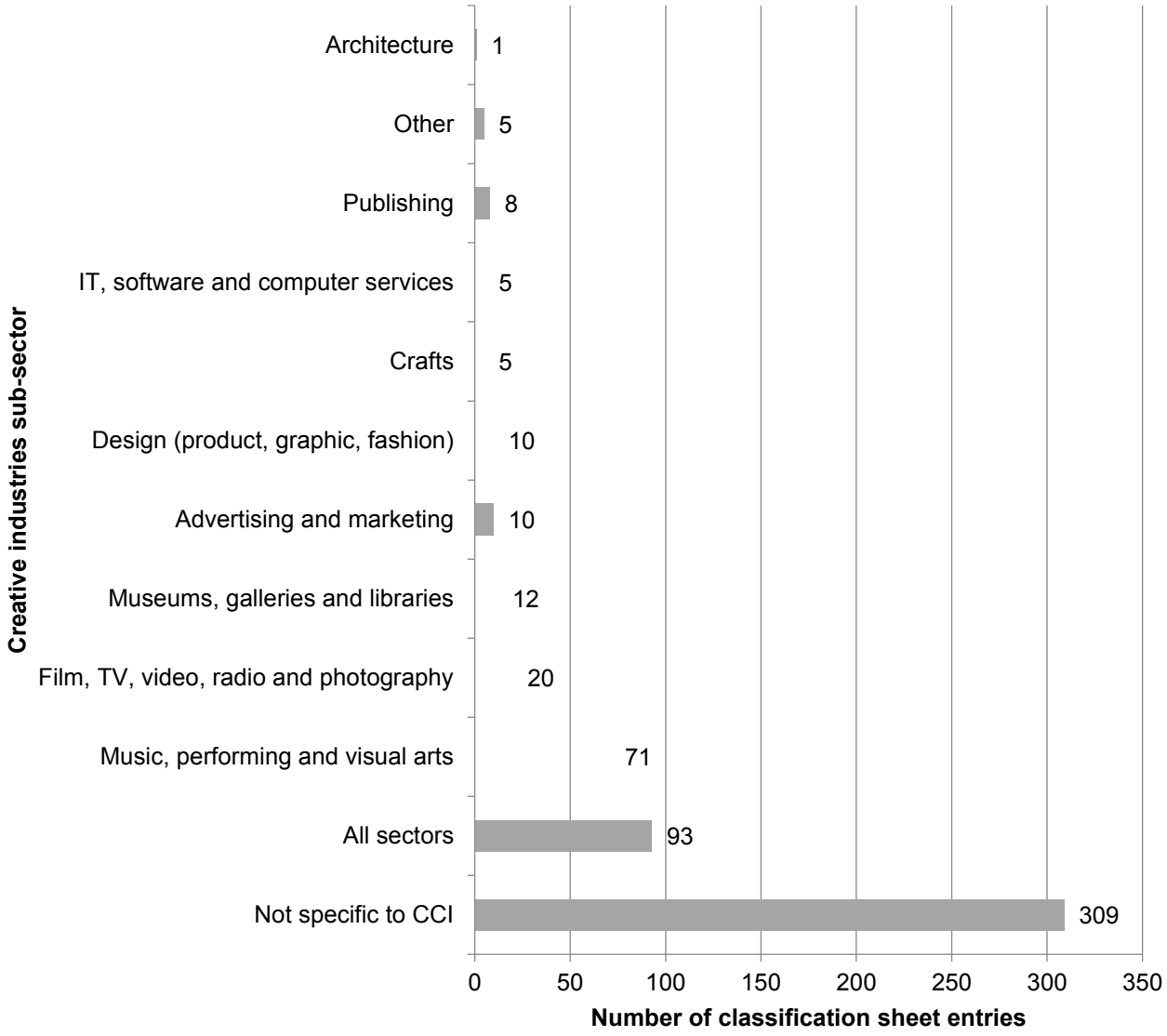

FIGURE 5.2: RELATIVE SUB-SECTOR FOCUS OF THE SECONDARY DATA-DRIVEN ECOSYSTEM, DEVELOPED FOR THIS STUDY

When generic and non-specific elements are removed, the sub-sectors of *music, performing and visual arts*, *film, tv, video, radio and photography* and *museums, galleries and libraries* are the next most frequently targeted in this view of the ecosystem. To

establish whether this is representative of what is known about the creative industries sub-sectors, the DCMS creative economy employment figures for 2015 (Department for Culture Media & Sport 2016) were used to draw up an order of significance. Table 5.1 below shows the creative industry sub-sectors in decreasing order of employment share using official economic estimates. This indicates that, were the creative ecosystem to be in proportion to employment figures, IT, software and computer services and advertising and marketing sectors should be strongly represented.

Table 5.1: Industry workforce by sub-sector (developed from DCMS statistical release 2016)

Figure 5.3 below shows the sub-sector focus of the secondary data-driven ecosystem alongside these creative economy employment figures (divided by 100,000 in order that they fit on this axis). The categories of *all*, *other* and *not specific* have been removed for the figure below. This shows that the number of sub-sector focused organisations and initiatives for the top three sub-sectors identified above does not have the same proportions as the number of individuals employed in these industry sectors. This is also true, although to a lesser extent, for the *advertising and marketing*, *crafts*, *publishing* and *design* sectors. In the case of *architecture* and *IT, software and computer services*, the reverse is true, and there are fewer references within the ecosystem in relation to the employment in the sector.

FIGURE 5.3: INDUSTRY SUB-SECTOR SUPPORTED IN SECONDARY DATA-DRIVEN ECOSYSTEM AND CREATIVE ECONOMY EMPLOYMENT, DEVELOPED FOR THIS STUDY USING DCMS 2016 DATA

This reveals that the ecosystem features across the top three sub-sectors identified above have a different scale of significance to the number of individuals employed in these industry sectors. This is also true, although to a lesser extent, for the *advertising and marketing*, *crafts*, *publishing* and *design* sectors. In the case of

architecture and *IT, software and computer services*, the figure above shows the reverse, and there are fewer features within the ecosystem in relation to the employment in the sector. The sub-sectors represented in the top-down view of the ecosystem are not in proportion to the workforce of the creative industries.

If Gross Value Added (GVA) were used as a means of determining proportion, the *IT, software and computer services* sub-sector would still be at the top of the list, as shown in Table 5.2 below. This sub-sector is followed by *advertising and marketing* and then *film, TV, video, radio and photography.* This is based on 2014 data reported in the DCMS 2016 economic estimates for the creative industries.

Table 5.2: Industry sub-sector contributions to Gross Value Added (developed from DCMS statistical release 2016)

Without repeating the detail of the debates around definitions of the creative industries, it is worth noting here that these particular sub-sectors are compound areas, in that they bring together a number of related disciplines and do not focus on one specific area. This is in contrast to more focused sub-sectors such as *architecture* and *craft*, which are both poorly represented in Figure 5.3 above. Figure 5.4 below shows the sub-sector focus of the secondary data-driven ecosystem alongside the sub-sector contributions to Gross Value Added. The categories of *all*, *other* and *not specific* have been removed for the figure below. As with the comparison to employment figures above, the ratios of sub-sector focused organisations and features in the top-down ecosystem is out of proportion to the contribution to GVA of these industry sectors.

FIGURE 5.4: INDUSTRY SUB-SECTORS IN SECONDARY DATA-DRIVEN ECOSYSTEM AND CONTRIBUTION OF SUB-SECTORS TO GVA 2014, DEVELOPED FOR THIS STUDY USING DCMS 2016 DATA

Many of the features identified in the secondary data-driven ecosystem are not specific to any of the creative industries sub-sectors. *Music, performing and visual arts* is the most dominant sub-sector in this top-down view of the ecosystem. Where organisations and features *are* focused on a particular sub-sector, this does not appear to be in proportion to the scale of the workforce nor the GVA of the creative and cultural industries.

The geography of the creative and cultural ecosystem

The secondary data-driven mapping approach tracked two aspects of place for each entry in the classification sheet: the physical location of the organisation / feature, and the geographic focus of their provision or target audience and customers. This has been set alongside data sources on the geography of the creative industries workforce as a proxy for the geography of the creative economy.

Where are creative ecosystem features located?

The geography of the UK creative industries is skewed toward London and the South when based on both the numbers of businesses in the “Arts, Entertainment and Recreation” sector and the number of employees in the creative economy (Bakhshi et al. 2015, Office for National Statistics 2016). Table 5.3 below compares these two sets of data to the ‘top-down’ ecosystem which here captures the physical location of organisations not their geographic focus.

Table 5.3: Regional breakdown of businesses classified as "arts", workforce in the creative economy and secondary data-driven ecosystem locations (developed for this study from (Office for National Statistics 2016, Bakhshi et al. 2015).

In addition, the secondary data-driven ecosystem map also contained 100 internationally and 48 European located organisations. The table above shows a number of key differences between this view of the UK creative economy and the top-down mapping of the creative ecosystem, the most significant of which are seen in the:

- South East
- East of England
- London

London is the dominant region for both workforce (24%) and business populations (30%), but the percentage of ecosystem features is higher than either of these areas at 33%. This may suggest that this view of the ecosystem is biased in favour of London-based organisations to a greater extent than national statistical approaches, despite no location specific elements being used in the search. The SIC coding and sub-sector views above suggest that the secondary data-driven ecosystem covers a broader range of industry areas than those contained within the definition of the creative industries. This imbalance in geographic location could suggest that the broader scope of industries making up the top-down ecosystem are predominantly London-based.

There is a further lack of alignment between the data on the South East and South West regions. Workforce data shows that the South East of England is the next most significant region in terms of employment (19%) whereas the secondary data-driven creative ecosystem has a significantly smaller proportion of features in this region (4%). After London, secondary data-driven ecosystem features are most frequently located in the South West (10%), a figure is broadly in proportion to the workforce data above. Whilst workforce data suggests that 10% of the creative economy workforce is located in the East of England, the 'top-down' ecosystem approach revealed no organisations or features in this region. The ecosystem as mapped from secondary data was concentrated in the south of England with much lower proportions across the other regions in

comparison to the workforce data. London and the south are the dominant geographic areas for the creative economy workforce and the locations of organisations in this top-down ecosystem. In this regard the data-driven approach does align with what is known about the industries. However, there is a marked difference in the proportions within these dominant regions which is worthy of note. The classification sheet and ecosystem mapping process also tracked the geographic target or focus of activity. This stemmed from a recognition that business location is not a direct match for business activity. These two aspects of geography are discussed below.

Where is the focus of creative ecosystem activity?

Table 5.4 below sets out the breakdown of physical locations of organisations and other features in the secondary data-driven ecosystem against the geographic target of their service or provision.

Region / devolved administration	Percentage of secondary data-driven ecosystem organisations **located in region**	Percentage of secondary data-driven ecosystem organisations **targeting the region**
London	33%	5%
South West	10%	7%
West Midlands	5%	4%
South East	4%	1%
North West	3%	1%
East Midlands	3%	2%
North East	2%	1%
Yorkshire and Humberside	2%	0%
Eastern	0%	0%
All UK	-	30%
England	-	8%
Scotland	3%	2%
Northern Ireland	1%	1%
Wales	1%	1%

Table 5.4: Physical location and geographic focus of secondary data-driven ecosystem components

In addition to the top-down ecosystem elements focused on the UK, there were 155 organisations with an international scope (28% of the total ecosystem map), and a further 51 with European coverage (9%). As shown above, around one-third of the organisations or features in the classification table were physically located in London. However only 5% of the secondary data-driven ecosystem organisations or features were restricted to London as the geographic focus of their activity. A further 5% delivered support across the whole of England and 18% of the features in the ecosystem covered the whole of the UK with their offer.

As shown above, the sub-sectors represented in the ecosystem are not in proportion to the workforce of the creative industry, and this pattern is replicated when examining the physical location of the ecosystem features. The suggestion that the top-down, or secondary data-driven, ecosystem stretches beyond creative industry definitional boundaries could go some way to explaining the further discrepancies in geography and workforce comparisons.

b) Contextualising this view of the ecosystem: a summary

In summary, much of the support identified in this view of the ecosystem is not specific to the creative industries. Where organisations and features are focused on a particular sub-sector, this does not appear to be in proportion to the scale of the workforce nor the GVA of the creative industries. By comparing the theoretical constructs to what we know of the geographic and workforce breakdown of the industry, we can see that there is a potential imbalance in the ecosystem view. This may indicate a mismatch between current understandings of ‘industry’ and ‘ecosystem’. However it is also important to note that these current understandings themselves represent a particular lens or approach developed from a product-based statistical perspective, so are not taken as an absolute truth to which these ecosystem approaches should be compared.

As a conceptual tool, the ecosystem analogy does begin to broaden the scope of what is connected and relevant to the creative industries, as it includes organisations and features beyond the government definition of the industry sector. However, in practical terms there are still omissions in the ecosystem map – predominantly concerning the

producers of creative content – that would need to be addressed before the ecosystem could be developed into a mapping tool. The process of mapping also came up against frustrations as, whilst the coding software and process allowed relationships and interactions to be tagged, the ecosystem frameworks did not, and so this richness of data - and potential importance to the function and purpose of an ecosystem - was not captured in the models used.

This view of the ecosystem from secondary data shows overwhelmingly that the creative ecosystem is not proportional to the industry sub-sectors contained within the system – the analysis above reveals largely generic features rather than sector-specific. Additionally, a geographic perspective reveals that the emerging creative ecosystem is not in direct proportion to the regional spread of the creative economy workforce. These geographic and industry sub-sector views of the creative industries are useful because they reveal key differences between the current policy perspective and the emerging view of the creative ecosystem. The geographic perspective emerging from this ecosystem approach also begins to show a rich multi-scalar view of the ecosystem in which international and London-based organisations represent nodes covering the whole of the ecosystem. In the currently accepted national statistics view, there is a predominance of London-based organisations, but the flows of resources from these organisations are not well captured. This fuller understanding may begin to help to position the needs and inputs of the smaller producers of creative content.

6) Stakeholder perspectives: whose ecosystem is it anyway?

This chapter reports on the semi-structured interviews with stakeholders that explored their situated perspectives on the concept of an ecosystem. Stakeholders were generally familiar with the concept, and the interviews discussed their approaches to understanding and defining the ecosystem, before moving on to discuss the key elements within these definitions and interweaving this with observations on the top-down ecosystem of the previous chapters, serving to validate the initial mapping above. In the final section, the chapter is summarised with reference to the research question – in what ways can this theoretical lens help to better understand and support creative micro-enterprises?

a) Stakeholder approaches to defining the ecosystem

Stakeholders were first asked to describe the ecosystem from their current understanding, before discussing the data emerging from the previous mapping exercise. The intention behind this approach was to avoid prejudicing the discussion of the ecosystem by providing stakeholders with detail of the theoretical frameworks at the beginning of the interview. This approach was explained to stakeholders as context and to overcome any difficulty in placing the topic for discussion with them without detailed explanation. Overall, the term 'ecosystem' was a recognised concept that stakeholders could engage with and describe, as shown below. Parts of the definitions offered here have been highlighted in bold to demonstrate the wide range of elements relevant to different understandings of the creative ecosystem:

> *"Well I think [ecosystem is] a term we recognise because we work with makers recognising that they work within an ecosystem. So that ecosystem is partly about the **structures** that are in place for them in support of their business, and also in support of their creative process."* S006

> *"I might describe the ecosystem as a set of **interdependencies** which are not characterised by the sector but by […] economics"* S001

> *"the nature of an ecosystem, which I'm interpreting as being […] something which is about mutual **interdependency**. It's about learning from one another. It's about sharing a pooling of resources and information and data. Actually, those things I think, are essential to a healthy cultural offer."* S002

> *"in essence, **a diverse range of organisations and a diverse range of stakeholders** that make up a creative ecosystem and that varies dependent on place"* S004

> *"**all the elements that contribute to making, in this case, the creative industries** operate and have outputs in all areas that one would consider valuable … not just about financial inputs and outputs, but it could also be the social outputs."* S007

Whilst the term is acknowledged and recognised by most interviewees, those that articulated it took very different approaches. This was also reflected in their descriptions of the ultimate goal or purpose of taking an ecosystem approach, which ranged across resilience, creative, economic and social outputs, a healthy cultural offer, and growth. Interviewees also made a distinction between the business processes and the creative processes that occur within, and are supported by, the ecosystem. Implicitly or otherwise, interviewees also take certain approaches to considering and defining the 'ecosystem' – as a training structure, growth model etc – in relation to the position or function that they themselves occupy within that ecosystem. This was expressed most clearly by one interviewee who approached the definition of ecosystem with a very deliberate consideration of their own position:

> *"well we would always say, and I would always say, because we live and breathe this, having people with the right skills to do the jobs that need doing."* S007

Stakeholder approaches to defining the ecosystem were coded and condensed into Table 6.1 below, which shows the key elements of the definitions, grouped into themes in order of frequency moving from left (most frequently mentioned) to right (least

frequently mentioned). These themes are then discussed in order in the remainder of the section below, with reference to the stakeholder interview more broadly, interwoven with their feedback and reflections on the emerging top-down ecosystem that was presented as part of the interview discussions.

	Education	Business development / infrastructure	Finance	Creative development	Government and policy	Values and ideological aspects	Other elements
S001	Education, training, skills (formal and informal)	Collaboration / ideas exchange – industry / commerce; local / regional	Finance – bodies (who decides who gets what?) Support of training	Physical space for creative practice, Virtual space Technical development – facilities, prototyping		Community – cohesion – development, Interventionalist practice, instrumental application of creativity	
S002						Shared ideology and values, equality, breadth of opportunity	
S003	Educational system	Digital infrastructure, Supply chain	fiscal framework		Legislative, regulatory framework		Customers
S004	Universities, Sector skills bodies	Businesses, workers, Organisations that enable businesses to communicate and network			Policy makers and government		(Intermediaries) Third sector organisations, trade associations and stakeholder groups
S005	Creative education, talent pipelines		Public subsidy, subsidised education, economic argument		Politically, only the economic argument will have weight, DCMS definitions		Differences between national and local ecosystems? Deliberately fragile construct

	Education	Business development / infrastructure	Finance	Creative development	Government and policy	Values and ideological aspects	Other elements
S006	Training and talent development	Structures in place in support of business and creative processes		Structures in place in support of business and creative processes		Drivers of the creative process = supported by values	
S007	Skills = creative and business operations	Infrastructure as capacity but also in terms of buildings and spaces	Financial inputs/outputs				Audience
S008		Wider arts infrastructure, networks, distribution	Seed funding			Trust	

Table 6.1: Stakeholder perspectives on composition of a healthy ecosystem (developed for this study)

Table 6.1 outlines the different expressions of ‘ecosystem’ across the stakeholder perspectives. In all cases, the ecosystem was described as a collection of elements that worked together to create the whole. The elements themselves, and the balance of these, was different for all stakeholders. These elements have, in some cases, been drawn out of the interview as a whole where stakeholders did not offer a concise or specific definition.

Education, training and skills was the most frequently referenced area that contributed to an ecosystem, and this covered both business or commercial skills as well as those required for creative practice. This also, as one stakeholder explained, covered formal and informal routes to, and provision of, education and training. The next most frequent aspects have been grouped together as business infrastructure in the table above, and this segment included physical and digital infrastructure as well as the workforce themselves and methods of collaboration. Stakeholders referred separately (and less frequently) to the infrastructure required to develop the creative practices that sustained the ecosystem, including physical and virtual space for development. Funding and finance was referenced by several stakeholders, largely in relation to policy decisions about financial support. This underlined an emerging sense that the stakeholder view of the ecosystem was shaped in part by their position within it, as those stakeholders who mentioned this aspect had some level of interest or responsibility for financial support. The stakeholder views of ecosystem also included government and policy aspects, although these were not mentioned as frequently or in any level of detail.

Some stakeholders also mentioned aspects which have been grouped together here as values or ideological elements, a theme which also emerges from literatures on cultural and creative work (Holden and Balt 2012, Schwarz and Yair 2010). This theme is less prevalent in the entrepreneurial or innovation ecosystem literatures that form the basis for this investigation, suggesting that it is something particular to the creative setting. The final columns in Table 6.1 capture a number of other elements that appeared infrequently in stakeholder interviews, such as audiences, consumers of creative products, and intermediaries.

Education

Six of the eight stakeholders talked about some element of education within their definition of 'ecosystem', with one interviewee in particular working specifically in a skills and education context to support the sector (S007). Talent and skills development, education and training are also important to other stakeholders (S003, S005) who worked in different aspects of the creative industries. This is reflected in the literature in the idea of the pipeline that supplies the creative ecosystem (Easton and Cauldwell-French 2017, Easton 2017, Neelands et al. 2015) and is linked to the *human capital* domain, *supplier* function and, to some extent, the *guardian* role in the theoretical approaches selected for this study.

Where the secondary data-driven mapping approach of chapter four was dominated by higher education providers as the largest single organisation type, one stakeholder saw a gap in the data in relation to specialist education providers to the sector, such as drama schools and conservatoires. On reflection, the online mapping approach also misses out the hidden education aspects of the system such as in-house apprenticeships and informal training routes. However, with reference to the theoretical framework constructs, the function or domain of education is clearly important to those working within the industries in any intermediary capacity, as well as being significant at the desk research stage.

Business development and infrastructure

The theme of business development was equally important in the stakeholder approach to the 'ecosystem', being mentioned by six out of the eight interviewees, and in fact overlapped with the discussion of education for one stakeholder:

> *"And when we talk about skills, we're not just talking about creative skills, we're talking about all of the skills that make organisations operate and operate well. So that could be anything from HR to finance." (S007)*

The ecosystem itself is seen as being made up of the structures that exist in support of business and creative processes. Turning back to the theoretical frameworks, these aspects reflect the domain of *support* (Isenberg), Moore's function of *complementors* and and the roles of *platform* and *connector* in Holden's cultural ecology. This approach to supporting structures also included the digital and technological aspects that underpin the creative industries:

> *"one of the topics that comes up a lot in our discussions […] is the importance of digital infrastructure and how, you know, large parts of the creative industries really rely on very high quality, reliable, affordable digital communications." (S003)*

This supports the earlier theme that creative businesses are affected by a broad range of factors from within and outwith the immediate industry sectors, which supports the ecosystem concept as a means of understanding this sector. Interviewee S008 also discussed the breadth of the ecosystem and the requirement for an infrastructure that spanned more than just creative occupations, because art forms were now being applied in wider context or spanning the boundaries of sub-sectors. Interviews also referred to the difficulties of supporting and measuring the impact of business development in a complex and fragmented sector:

> *"we kind of know the conditions for growth, but how you actually articulate that is really difficult and it would be so much easier if we were kind of in the nuclear physics industry and I could bring everyone together to talk about a specific pipeline or widget." (S008)*

Finance

Five of the eight interviews defined ecosystem using some reference to financial aspects, and the discussion of these points largely echo the 'economy v ecology' argument as outlined in the earlier chapters.

> *"arts ecology encompasses more than just economic factors, whereas creative economy is more specifically around exchange and commerce I think" (S001)*

This was seen by one stakeholder as contributing to a clash of values, whereby the innate values of one part of the system become a barrier to accepting new or different approaches that may stem from a different value set:

> *"I've since learnt, as I've had more and more involvement in commercial arts, what we might call private sector arts, as to how often arrogant and blinkered the publicly funded sector can be towards the more commercial aspects of the cultural sector." (S002)*

This suggests that the clash of values might become a barrier to engagement across the ecology-economy spectrum. Finance was discussed specifically from the grant funding (or arts ecology, to use previous terminology) perspective by interviewee S008, whose organisation provided a range of seed funding and business support to arts and culture businesses. Acknowledging the downward trajectories of public funding models, the interviewee described the need to support arts organisations to alter their own funding expectations:

> *"You need to have, you know, this kind of third-third model where it is sort of private, public and then pure income generation through ticket sales etc etc. So for us that means in practice a lot of it is about connections to audiences, it means, erm, looking at business systems, so customer relationship management from the moment that you're contacted by an audience member, about understanding who your audiences are." (S008)*

The usefulness of the ecosystem device in relation to finance and funding was summed up by one interviewee who asked:

> *"can looking at [the industries] through the lens of ecosystem help us prioritise our investment strategy and the nature of the support that we give organisations with a view to driving growth?" (S001)*

Another interviewee noted that new organisations and individuals entering the sector are aware of a change in sector finance models, and that this includes a reduction in public funding.

Government and policy

Stakeholder discussions referenced the national framework of government and policy in relation to the creative ecosystem, recalling the *government and regulatory* function of Moore, the *policy* domain of Isenberg and, to an extent, the *guardian* role in Holden's cultural ecology. Interviewees specifically identified a range of wider elements that are important to their concept of a broader system, including a level of public support which recalls the creative economy *v* arts ecology line of discussion discussed in chapter two:

> *"that sense that a cultural life, therefore the cultural industries, therefore some level of public investment is necessary, not just for talent but for creating habitat, environment where creative industries can thrive and flourish in terms of clusters…" (S005)*

Additionally, some of the stakeholder definitions and considerations of the ecosystem reflected the importance of representative bodies and trade associations to supply the views and perspectives of sole traders, micro-enterprises and other smaller organisations in the system (S003, S005, S004).

> *"Policy needs to be alive to particular constraints and circumstances faced by small business and the fact that the creative industries as a whole are overwhelmingly made up of small businesses." (S003)*

This carries through into the discussion of SIC and SOC codes, which are largely seen as imperfect. One stakeholder noted that craft occupations, for example, are only partially included in the DCMS grouping of codes that make up the creative industries. This is widely recognised as unsatisfactory, and there has been significant discussion of the sub-sectors that should, and should not, be included in definitions of the creative industries (Hesmondhalgh 2007, Roodhouse 2011), as noted in chapter one.

> *"DCMS does participate in reviews, and that is welcome, and a simple line in your final report saying 'these sorts of codes need to be revisited within the*

creative industry' would be welcomed, hugely welcomed, because we keep knocking on that door." (S006)

Whilst it is recognised that "the evidence base has always been imperfect" (S003) these codes are all that the industry, and policymakers, have available to define and describe the sector, and thus need to make the best possible use of them (S006). Others were of the opinion that the SIC code approach was useful when grouping some of the digital and technological aspects of the creative industries but became more difficult when applied to some of the cultural organisations in the sector (S008).

"we're a bit cynical about SIC and SOC codes, […] we take [them] with a pinch of salt, but from a data analysis point of view there's not a lot else that you can go on." (S007)

In particular, the narrow focus of SIC and SOC codes is seen as less useful when trying to understand the contents and the functions of the sector. Several of the interviews referenced the government tendency toward data driven decision making, and within this some made specific links to economic value as evidence of impact (S001, S003, S004, S008). This may suggest that the ecosystem concept can help to broaden the understanding of what makes up, and drives, an industry sector.

Values and ideological aspects

This theme gathers together elements of stakeholder discussion on three interlinked aspects: the impact of terminology in the creative industries; the interactions between creative and commercial values; and the idea of competition.

Stakeholders noted that the terminology used in and about the sector is varied and contested (S001), leading to a lack of clarity for policymakers and others attempting to use clear terms as part of their support approaches.

"I think that we've got very very mixed up with our terminology. […] what is it that we're really talking about in terms of our creative industries, what do we mean?" (S001)

Similarly, as shown above, there are differing but linked definitions of ecosystem and its purpose across the stakeholders interviewed. Language and terms used do not necessarily translate across settings, but interviewees translated this for their own contexts. Whilst most interviewees recognised that economic value is the language of policy, albeit imperfect, they pointed out that other, less financially focused, framing is unlikely to gain traction with policy makers, so the sector and its advocates must continue to use it (S005). This led one stakeholder to debate where and when in the creative (economic) process the 'value' focus shifts from creative / aesthetic / social value to the more commercially focused definition of value, noting that identifying this point "could be a huge way of shifting government's perception of where value lies across the sector" (S001). The impact of current funding is reportedly now measured in economic terms - "are they getting larger audiences, are they selling more tickets" (S008) - but there is also an attempt to acknowledge the artistic impact of work that is enabled by public funding.

When discussing the secondary data-driven ecosystem map, the value aspects of larger institutions in the ecosystem were considered in relation to Holden's 'guardian' role, with one stakeholder discussing "large repositories of intellectual property […] when they say they're looking after those cultural assets, they're kind of looking after them for commercial purposes" (S003). This lens on value also reinforces the importance of definitions as discussed above; bearing in mind that if the focus of guardians of cultural assets becomes the commercial value of the intellectual property therein, the other value drivers of that cultural content are, potentially, diminished. In terms of creative content, the idea that 'more is more' was important to the wider ecosystem, which is particularly interesting when contrasted with an intellectual property model that does not encourage the sharing of content. As expressed by one interviewee:

> *"you don't just need the breadth and diversity [of the ecosystem] because of the quantity of need, you actually need it because of the diversity, the variety [within that quantity]". (S002)*

This stakeholder extended the argument here to state that, to encourage this diversity, larger organisations have more responsibility to support others in their

ecosystem. This flowed from a point made in two interviews that larger organisations often have more power and voice to further their own interests (S002, S005).

> *"I do believe that the bigger an organisation and/or the greater the public subsidy that goes into that organisation, the greater should be the responsibility of the organisation to share, to nurture, to enable and to empower smaller organisations and individual operatives." (S002)*

The origins of the ecosystem term in business literature centred on developing competitive advantage by understanding the organisation's position in their ecosystem. In the context above, ecosystem as strategy takes on a slightly different approach, with an understanding of the wider system being used to develop positive feedback and enrich the system. Across the interviews there was a significant sense that the creative ecosystem was different to other industry sectors, in part due to this enriching process, which helps to address the practicalities of operating a creative business practice in a particular sector:

> *"a kind of collaborative ecosystem is what is important for sustaining people in what sometimes is quite isolated practice." (S006)*

A further expression that the creative ecosystem somehow operates differently was expressed in the interview that took more of an ideological approach, with the note that:

> *"the ecosystem […] does not need leaders in the sense of dictators or autocrats. It needs leaders who are, first and foremost, humble, and who are enablers and who empower others to achieve." (S002)*

This leans towards a consideration that there may be a different and additional set of value drivers that underpin the creative ecosystem, rather than only the business and growth focused approach that is clear in the business and entrepreneurial ecosystem frameworks. The discussions here recognised the different drivers that might affect the micro-enterprise, which is something to bear in mind during the case study process – does this recognition of the value struggle extend to the small business environment? And

if so, what are the key points of similarity and difference in these different understandings of value drivers that might affect policy and support for micro-enterprises?

b) Discussing and validating the secondary data-driven ecosystem

The discussions above have considered elements of the stakeholder interviews that focused on the ecosystem approach as created from secondary data. This section highlights the additional elements of stakeholder discussion that were not common to multiple interviews but were significant in relation to their definition of ecosystem. In addition, the stakeholder points captured here were not recognised within theoretical approaches used to map the top-down ecosystem. This could indicate areas very specific to the creative sector. The section is divided into three main themes of discussion –

- The parts that make up the creative ecosystem, whether individuals, organisations or sub-sectors.
- Policy understandings of this and how it has been researched and supported.
- The way in which the ecosystem might be understood through place and perspective.

The make-up of the creative ecosystem

All of the interviews discussed some element of creative content production, covering the *core contributors* and *nomads* in the theoretical models. Audiences and consumers of creative content were described as an important part of the overall ecosystem by two stakeholders, who noted that there was a gap in the emerging data on these groups. However, when discussing the functions of the ecosystem overall, there was little specific debate on the engagement of these groups. When reviewing the secondary data-driven ecosystem, several stakeholders pointed out gaps in the emerging data where they would have expected to see the creators of content.

> *"I think that's been the most surprising thing […] for me. How invisible the creators of the content are within so much of these paradigms." (S002)*

However, it is also noteworthy that no stakeholder included these creators of content in their own approach to defining the ecosystem. This occurs even where the

stakeholder does work with micro-enterprises, which was the case for the majority of interviewees. Broadly speaking, the stakeholders that were approached did recognise the importance of micro-enterprises and freelancers / sole traders to the shape and size of the creative sector:

> *"an industry that is so, well, disparate because it is lots of different sub-sectors but also has such a long tail of small, micro-businesses." (S003)*

> *"cultural organisations - they may be one person, they may be three people, they may have a venue, they may be non-venue based, they may have different drivers for actually making work." (S008)*

The theme of clusters, as referenced above in relation to public investment (S008), was also discussed by another interviewee who noted the difficulties in generating creative clusters as a policy initiative:

> *"you don't just create a studio anywhere you happen to choose, there's a, that's a whole ecologies and village really and the proximity of the outlying services to the studios is complicated […] those things aren't easy to just plant somewhere, you know, they develop over time." (S001)*

This aspect could be covered by Holden's *nomad* role, but the element of clustering and creative sector development is also allied to the infrastructure elements discussed above. Importantly this understanding also references the time required to generate genuine and functioning connections and relationships within the creative cluster, in this case. Another stakeholder referred to the importance, in an ecosystem, of organisations acting as intermediaries. Whilst well represented in the top-down ecosystem map, there is not an easy link to a single category in the theoretical approaches. Intermediary bodies in the secondary data-driven mapping are categorised by their role or function in relation to the ecosystem as a whole, so may appear in various categories within each framework approach, and are prevalent across the ecosystem as mapped. This is important, as noted above, for representing the views and needs of the smaller organisations and workers across the creative sector in policy and / or national

discussions. As discussed above, there was widespread agreement that the current coding approaches to industry and occupations are imperfect. Whilst not suggesting that this study work towards a reorganisation of SIC and SOC codes (S003), taking an ecosystem approach could help better understand the interdependencies that do matter. This idea of interdependency and relationships was discussed by another stakeholder, who took the view that classifications of this nature are less important than the "mosaic of organisations" that make up the ecosystem and how they interconnect (S004). One stakeholder pointed out a useful direction for further examination of this data:

> *"I think it's interesting that you have the top organisations but I think it's more interesting how they sort of connect with one another." (S004)*

Interestingly the idea of relational aspects was also mentioned in the context of the typology and theoretical framework:

> *"It's quite hard with this, isn't it, because in a sense you'd be defined as 'that' in relation to something else." (S003)*

Through discussion, stakeholders explored the way that the creative sector has been variously described and understood over time, and how this is beginning to be addressed by using 'ecosystem':

> *"there was a policy reality which separates the arts from the creative industries, and a kind of intellectual tradition in doing that as well, and then there was a, an industrial reality, which is highly mobile talent moving through [these pipelines]." (S005)*

There is further and more direct perspective on this raised by interviewee S008 who suggests that the boundaries between sub-sectors are shifting and fluid:

> *"the artist I think is getting less sacrosanct about their practice, open to using lots of different ways of working, you now, they might be presenting work as a drama or an actor at one point, they might create something in music, they*

might put that online they might do a short film, so you know, it's hard to sort of put them in a box and keep them there." (S008)

Policy understandings of the creative ecosystem

Policymakers' late recognition of the make-up of the sector was commented on in relation to work of the consultation process led by the Warwick Commission:

"at that time, people hadn't understood the extent to which it's 90% SMEs, and even more recently only understood that it's actually sole traders" (S005)

The micro-enterprises and content creators, and their dynamic nature, that make up the bulk of the sector, present particular difficulties for classification and mapping, which as one stakeholder pointed out, underpins the origins of the ecosystem term:

"Precisely because it's all sole traders, freelancers, people moving in, people moving out, people not accurately recording which sector they belong to and everything else, and it's, it's intensely – I mean the two frustrations were, you cannot map the scale of it, and you cannot follow from input to output any kind of investment that's made, whether its human investment or financial investment, as you could in any other industrial sector." (S005)

There were several references to research programmes and projects across the sector that focus on these workforce sectors. This further serves to underline that stakeholders and policy makers are actively seeking to better understand the creative industries and their constituent parts. One stakeholder made specific reference to research and lobbying led by the Creative Industries Federation who produced a report looking at the needs of freelancers (Easton and Cauldwell-French 2017):

"I think it's highly likely they'll find creative industries have got a disproportionate number of freelancer and sole traders, as a sector. And again, that helps us to make the argument for better support and better government assistance to microbusinesses." (S006)

One stakeholder, whose organisation's function focused on education and skills, made reference to their research function, no longer in operation, which had a very specific focus on the growth needs of micro-enterprises. This acknowledges the predominant organisation form in the sector, and that, as the stakeholder put it, "work around skills is not just about big organisations, in fact quite the opposite" (S007).

With reference to the data presented on the emerging ecosystem, stakeholders noted that large or significant charitable funders and grant makers were not represented in this view of the ecosystem (S001). This was of particular interest to the bodies offering support and finance to creative businesses, because of its effect on the demand, and eligibility, for finance:

> *"a key question at the moment is trying to quantify the size of the market that sits between charitable and social and then within [that] how much of that is really social and how much is pure arts charity and not really social at all" (S001).*

One interviewee identified further omissions across the expected range of publicly-funded organisations:

> *"all of the DCMS and non-departmental public bodies, who are like Tate, the British Museum, the V&A Museum, the Science Museum, again all huge guardians using that description, with international profile." (S007)*

Whilst the stakeholder perspective on a functioning ecosystem did bring up several of the categories seen in the theoretical frameworks, there were other aspects of these theoretical approaches that were not discussed. The specific *competitor* function of Moore's ecosystem, was not referenced either directly or tangentially. Implicitly, the stakeholders did recognise the roles played by *standards bodies* and other *stakeholder* organisations, and also the existence and importance of *customers*, as well as the concept of the *guardian* role within Holden's cultural ecology, and the *culture* domain of Isenberg's entrepreneurial ecosystem.

Place and perspective in relation to the creative ecosystem

Stakeholders did not mention place in their definitions of what makes up an 'ecosystem', although one interviewee acknowledged that an understanding of ecosystem might vary by place. The emerging findings on the physical location and target location of organisations across the ecosystem prompted a range of comments from stakeholders. This showed that a large proportion of the 'ecosystem' was physically located in London, and there was some sensitivity to this point, particularly when the discussion included aspects of public funding:

> *"you can't ignore the importance of London in the ecology, and to starve London of investment because you want the regions to thrive is not a good strategy for supporting the growth of the sector" (S001)*

> *"rebalancing cultural capital is not as simple as just taking money out of London and putting it elsewhere because it may not be accurate anyway." (S005)*

> *"one of the things [government] are particularly interested in is how to ensure that the sorts of benefits of economic growth are felt around the UK, so not just in London but outside, sort of developing clusters is one of the key areas they are focusing on." (S003)*

One interviewee also suggested investigating whether the regions as emerging from the online mapping process had any correlation or relationship with Nesta's creative and high-tech clusters from their 2015 report (Bakhshi et al. 2015).

Another stakeholder pointed out that regional variations might equally relate to geography, recognising that this study (and work to date) looks very much at a national ecosystem and that there might be a different perspective to bring "at a hyper local level" (S005). Interviewees also noted that the ecosystem would look different depending on the vantage point taken, and that this might be related to the scale of the business:

> *"I guess, again, it depends on who, it's the ecology from whose perspective. If it's an ecosystem for a maker, it wouldn't necessarily include many of those organisations I don't think." (S006)*

Stakeholders described a number of distinctive versions of the ecosystem, all of which are valid and all of which are linked together through their focus on the sector. Some of these alternative perspectives on the ecosystem were offered by one interviewee:

> *"There's kind of the business ecosystem, then there's the sort of personal and professional ecosystems that support makers. […] there's also a kind of ecosystem if you like of how people access [the creative product]" (S006)*

Another interviewee's comments supported the conclusions of chapter four above, noting the lack of agreement across the categories used in the theoretical framework, and describing the limitations of the combined approaches as a metanarrative:

> *"What you're saying is, looking at three variant approaches, there isn't a metaparadigm which easily accommodates all three?" (S002)*

However, overall the ecosystem term does offer something useful for stakeholders at least to bring aspects of the industry and its pipelines – and the delicacy of this balance – together as a construct:

> *"it does make sense to think of the creative industries […] as a recognisable sector, [and] it does make sense to think of an ecosystem as a deliberately fragile construct." (S005)*

c) Summarising the stakeholder perspectives

In reviewing the responses collected, it is important to bear in mind the positions represented, and that these are not representative of the whole creative industry stakeholder perspective – ten organisations were approached for interview, and the eight respondents' perspectives further combine into a particular set of views. This is therefore

one collection of stakeholder views on a concept applied to their sector - using this methodology, there may be a number of subtle understandings of the ecosystem, both implicit and explicit. The section above establishes this particular stakeholder group's perspectives on the concept and content of the ecosystem. Key messages emerging about the stakeholder view of the ecosystem include:

- Those that articulated a specific description or definition took very different approaches.
- The goals of the ecosystem differed by definition.
- The goals and definition differed by the position and perspective of the stakeholder.
- The balance of elements within definitions was different for each stakeholder.

There was recognition across the stakeholders of the ecosystem term, and how it offers a useful way of understanding the breadth of the creative sector. The stakeholder perspective on the ecosystem construct had several parallels with the theoretical approaches, with the inclusion of education and skills, the wider infrastructure, funding and finance, and government and policy aspects being volunteered by stakeholders as important components of a functioning ecosystem for the cultural and creative industries. In addition there were elements that did not have parallels in the theoretical approaches (including the cultural ecology model), which covered space and support for creative development, and driving values and other ideological aspects.

The creative ecosystem, as conceived and described by stakeholders, is implicitly framed by their position in relation to the sector. Several interviewees clarified their approaches with reference to their prior work experience as creatives or from a different policy angle. The various views of ecosystem that were described were also shaped by the focus and approach of the organisations represented by interviewees. Each of these different perspectives build toward the idea that the 'ecosystem', in all approaches, is dynamic and shifting, and is likely to require constant maintenance in order to perform. This dynamic understanding is likely to be required whatever position in the sector is used to centre the ecosystem. For this sector in particular, it seems that the ecosystem construct reveals different facets depending on the stakeholder position and perspective.

This may have parallels in other industry sectors but this is not yet clear as this study is one of the first to apply the construct(s) to a specific sector rather than to the innovation or entrepreneurship environments. The next chapter explores the lived experiences of the ecosystem from the perspective of creative industry micro-enterprises.

7) Micro-enterprise ecosystems: the journey not the destination

This chapter moves on from the validation process of the “top-down” data-driven map and stakeholder views and offers a basis for investigating further the interplay of values, business models and access to support that comprise the micro-enterprise journeys. Investigating ecosystems, this section of research and analysis develops six narrative case studies of micro-enterprise business journeys, each focused on a different creative industry organisation in the West Midlands. The purpose of these case studies was to understand and document the business journey, prior to applying the ecosystem frameworks to this emerging data as a further exploration of the research question. The six case studies are each comprised of four major elements:

- A micro-enterprise timeline, using accounts and reports in the public domain, and interview detail.
- A micro-enterprise journey, comprised of narrative detail from interviews.
- Case study-specific ecosystem maps, using all available sources.
- Overall [researcher] reflections on the ecosystem maps and journeys of the case study micro-enterprises.

The map below shows the location of the case studies across the region, and across the creative industries.

FIGURE 7.1: GEOGRAPHY AND SUB-SECTORS OF CASE STUDY MICROENTERPRISES

The research approach focused on the ecosystems around and of the creative micro-enterprises developed from an understanding of their business journey and supporting documentary data.

To present the ecosystem maps, a sunburst diagram is used to show relative proportions of each of the framework segments for each of the three theoretical ecosystem frameworks. Percentages of ecosystem components are used throughout the diagrams in this chapter to aid comparison across case study sites. The outer ring of the

sunburst diagram shows the proportion of regional, national and international geographic scales within each category of the frameworks. The final section of each case study considers the ways in which these micro-enterprise ecosystem maps contribute additional or alternative perspectives on the cultural and creative industries context. This section of the case studies reflects on the micro-enterprise journeys through the developing ecosystems and the role of key ecosystem nodes and relationships. These formative reflections are then taken forward to the chapter summary, which returns to the research question and asks - to what extent is the ecosystem concept useful in better understanding the micro-enterprises studied here?

B001: I have never believed in government grants

> *“business is all the same, people who make the effort, the connections, the networks – those are the people that survive and thrive.”*

B001 is a marketing micro-enterprise based in the Tamworth area to the north-east of the West Midlands. A limited company with two directors, which has had one employee since inception in 2006, the micro-enterprise provides outsourced marketing services to SMEs across the region and beyond.

The case study below sets out a timeline of the micro-enterprise drawn from available data sources and presents this data in relation to the theoretical ecosystem models.

Business journey B001

The focus of the timeline above is the business journey from its inception as a sole trader enterprise in 2006 to its current position as a limited company with two directors. The business owner confirmed that whilst the business has grown in cash and income terms, there had been a conscious decision **not** to grow the business in terms of staff count.

> *"The reason I don't employ anybody – I made that decision right there, because, right in 2005, because, in my old company, I found that sixty percent of my time was spent dealing with personnel matters, of all sorts, and not getting on with my work. And that's when I made the decision to never employ anybody."*

The quote above also references the previous experience of the business owner – this business was started in the year the owner turned 40, and as they left a senior post as an employee. The decision to register as a limited company was also taken early on in the business journey for reasons related to tax and cashflow, although no sources were cited as the basis for this advice. In addition, the business profile was growing to the extent that the owner saw registration as a means to limit personal liability. Another early intention of the business was to do something that gave back to society, although this was not able to be realised until much later on in the journey.

One of the most significant factors in the business journey, and the scale of its ecosystem, has been the interaction with local networking groups. Prior to this engagement, clients and suppliers were spread nationally and largely sourced by recommendation. The development of local networks over time had also contributed to the efficiency and professionalism for this business.

> *"back here (2005) before I knew all these people, I knew some people but I didn't know all the people I know now. I would have spent half a day on the internet finding suppliers. And the trouble with using suppliers from the internet is that you never know how good they are, they might not be in business next*

week, you might get a brilliant price but if it doesn't turn up or the goods aren't what you expect them to be, and often on the internet you have to pay in advance, so I've learnt my lesson, that I use people I can trust."

Once a local networking presence had been established, this became a significant frame for B001's client work and supplier network, although the discussion did not focus on specific clients as the owner wished to keep this information confidential. Learning points that were taken from the earlier days of the business also related to the time spent meeting potential new clients:

"I quite early on stopped going for potential customer meetings, you know, you go for the first meeting with somebody, unless I'd qualified them first, because I often found that people will take your time and basically get you to tell them what you think they should be doing, with never any intention of paying you or taking it any further. And that's why I tend to work with the medium smaller businesses or even the bigger businesses."

These issues have led to almost all of the current clients and suppliers of the micro-enterprise being located within the West Midlands area, which could be seen as a deliberate construction of an ecosystem that meets the needs and values of the business owner. This also highlights that it takes time to develop an ecosystem that fits these needs and delivers on business objectives.

By 2013, the business had developed to a scale where the early desire to "give something back to society" could be realised, and the working week was changed from five days to four. However, as the business owner points out, this in practice often means doing five days work *in* four, rather than reducing the workload. However, the satisfaction in achieving this goal seemed to outweigh any workload difficulties. The business owner realised relatively early on that she couldn't do everything within the business to make it function, so she has also developed a further formal network of freelance contacts to fulfil particular specialist functions within the core business - accountant, book-keeper, administration. This is in addition to the network of specialist service providers that B001 has developed over time to provide the range of creative services to clients.

Another significant factor was the connection with the UK Government's Growth Accelerator programme in 2014, although B001 was not a recipient of support to grow as a business but was instead presented with an opportunity to connect to, and provide services for, new clients. The link to the Growth Accelerator programme came from an existing connection to a named colleague, which then also led to work with PERA training, so these aspects are all interlinked and, to an extent, sequential. This was the only interaction B001 reported with specific support policy or programmes, noting that:

> *"I mean, as to where I've gone for help, there isn't, there isn't really any help. The help has come from other local businesses, because I've found that there wasn't [sic] really any grants or anything available for a business of my size, and because I never wanted to employ people."*

Ecosystem maps B001

The diagrams below set out the connections made by B001 during its business journey, using the categories within the three theoretical ecosystem constructs. The diagrams represent each different ecosystem at the time of writing and show the relative geographic scale as far as possible.

FIGURE 7.3: B001 ECOSYSTEM MAP 2017 USING MOORE'S BUSINESS ECOSYSTEM

Moore %	International	National	Regional
Supplier	0%	0%	9%
Stakeholder	0%	0%	9%
Government and regulatory	0%	4%	0%
Distribution channel	0%	0%	0%
Customers	0%	0%	0%
Core contributor	0%	4%	17%

Complementor	4%	4%	39%
Competitor	0%	0%	0%
Standards bodies	0%	4%	0%

In B001's business ecosystem, almost half of the connections fit into Moore's *complementor* function, defined as those who provide complementary goods and services. The majority of these are regionally based connections. When examining the particular connections here, it becomes apparent that here, as above, B001 has different types of relationships within this category. The link with St Giles Hospice is not a work-related relationship, as discussed through the narrative of the business journey above. However, it has been an important part of B001's business journey, which has been altered because of the motivating factors that led to the relationship. The connection to the two networking organisations has been discussed above in the context of the entrepreneurial ecosystem, and as before, one of these relationships is seen as positive and productive, whereas the other was not in keeping with the business values and approaches of B001. Using the Moore approach to categorise connections in the business ecosystem does not reflect the value judgements made about the nodes in the system.

The *core contributor* function, and particularly the regional connections within it, was the next most frequently attributed area of B001's business ecosystem. This included those organisations deemed to be core contributors to the creative ecosystem overall. In mapping these organisations in this fashion there emerged a conflict - their function was as *suppliers* to B001 as the centre of this particular ecosystem map, but their main role in relation to the wider ecosystem sat elsewhere. In developing and maintaining the relationships with *core contributors* and *complementors*, the interviewee highlighted the importance of trust and quality, and reiterated the importance of geographic proximity so that the development process, and the quality of work could be checked more easily. It is useful to note that whilst there is one nationally tagged *core contributor*, this connection was a strong and valued one and still had close geographical proximity. The organisation in question was based in the East Midlands so the daily contact that characterised this relationship was still feasible. The issue of trust and quality, or the value placed on

particular relationships, was not easily highlighted in the mapping approach, but is important to bear in mind, potentially for the future development of this research approach. In the *suppliers* category were a number of regional organisations providing specific services to B001. Throughout the business journey the owner had recognised that there was value in bringing in specialist services in some areas, in order to ease workload and improve efficiency. Trust was again an important aspect of these relationships, and this had developed over time, neither of these aspects being visible from the ecosystem mapping.

There were no *customers* mapped in this view of the ecosystem, in part because the interviewee kept this information confidential. The discussion did reveal that the majority of clients were also regionally located, and that as well as this being a conscious decision, the portfolio had been developed over time. Again, the time taken to build an ecosystem that fulfils business needs (both operational and value driven) is not reflected in the theoretical frameworks. Another zero-count category was that of *distribution channels*, which, for B001, could equally be considered to be clients. The possibility that an organisation can fulfil more than one role across an ecosystem, as discussed in the approaches to mapping above, presents complications when attempting to use a rigid framework to analyse a dynamic sector. In the business ecosystem map for B001, there was only one *standards body* organisation referenced. This national organisation was sector-specific and provided training and updating functions (which sit within Moore's *suppliers* function) as well as regulating the professional standards of the sub-sector. The interview process, and the range of documents collected, did not discuss competition or *competitor* organisations, and this is a further zero count in the business ecosystem map presented here.

FIGURE 7.4: B001 ECOSYSTEM MAP 2017 USING ISENBERG'S ENTREPRENEURIAL ECOSYSTEM

Isenberg %	International	National	Regional
Support	0%	4%	0%
Policy	0%	4%	0%
Markets	0%	4%	43%
Human capital	0%	4%	30%
Finance	0%	0%	0%
Culture	4%	0%	4%

The majority of the connections and organisations in B001's map are regional entities within Isenberg's *markets* domain. This covers customers, networks and

distribution channels, and as commented in earlier chapters, there is no means of differentiating these types of organisation within the mapping approach used. The data collection process, and particularly the interview with B001, focused largely on the sourcing of materials in order to provide the comprehensive marketing service that B001 offered, so the named organisations here are largely suppliers to B001. There were two distinct networking related organisations, one of which was seen positively by B001 and the other deemed inappropriate to their particular business approach. The Isenberg model does not provide a means of distinguishing between the positive and negative connections of an organisation. The next most significant domain in the Isenberg map for B001 was that of *human capital*, which was populated entirely by regional contacts. This does reflect the sourcing of workforce and creative supplier elements that came out of the interview. However, Isenberg's definition also includes education and training aspects, a key element of which for professional development purposes was the Chartered Institute of Marketing - this did not fit in to the *human capital* domain as it fulfils the definition of a *support* organisation (and indeed made up the entirety of this category in the ecosystem map). This suggests that, for B001 at least, the reason for connections to particular organisations might differ from the entrepreneurial ecosystem categorisation of that organisation. This is also seen in the *policy* domain, which was filled by a single national programme. This programme - the Growth Accelerator scheme - is defined as policy within Isenberg's approach because it is a regulatory framework incentive. The scheme was not in itself a source of support to B001 but rather offered a route to new clients who were themselves supported by the programme as discussed above. However the mapping using this framework alone does not show the purpose of the connection, nor the sequence of connections that led to the Growth Accelerator work. There were no entries in Isenberg's *finance* domain, which is defined as private equity or debt finance. Whilst B001 does have an ongoing relationship with a financial services organisation for accounting purposes, this does not fit Isenberg's definition which, here, focuses on the supply of finance as the key function.

FIGURE 7.5: B001 ECOSYSTEM MAP 2017 USING HOLDEN'S CULTURAL ECOLOGY

Holden %	International	National	Regional
Connector	0%	9%	52%
Guardian	4%	4%	0%
Platform	0%	0%	9%
Nomad	0%	4%	17%

Holden's cultural ecology approach has fewer categories (roles) within it, and a specifically cultural function behind each of these roles. By far the majority of B001's cultural ecology map is made up of the *connector* role, which provides links between

people and resources across the ecology as a system. Over half of B001's connections fulfilling this role are regionally based, but not all of these are cultural or creative sector organisations. The connections here span a range of functions from accountancy and book-keeping to printers and newspapers. This range of organisations within one ecosystem category does not offer a nuanced perspective on the overall ecosystem for B001, but does align with the focus of the interview which placed importance on the developed range of connections that the business had created over time. As above, the theoretical framework is a snapshot in time, and does not reflect the length of time taken to build relationships and connections. The *nomad*, or creative content, role in B001's cultural ecology was also largely regional, and the national connection here was the relatively closely located graphic design organisation C'Designs Ltd, discussed above as a frequent collaborator with B001.

As with the other theoretical frameworks, the frequency of contact or the significance of any given relationship is not revealed in this approach. The range of connections to *platform* organisations was limited in this ecosystem map, which could reflect the particular sub-sector itself in relation to this role. Platform organisations are those venues, physical and digital, that host cultural content, and as a marketing organisation there may well be limited connection to such entities. This could also be related to the position of B001 as a creative industry organisation that does not offer its services to creative industries, instead focusing on the marketing function for manufacturing and other associated SMEs. Debates about what constitutes the creative industries have been alluded to in the first chapter, and there is no desire or space to repeat them here, but this issue may open up an important area of discussion in relation to the creative ecosystem's boundaries. The final role in Holden's cultural ecology is that of *guardians*, or the holders and protectors of cultural assets. B001 engaged with very few organisations fulfilling this role. The Chartered Institute of Marketing was categorised as a *guardian* as it upheld the cultural assets inherent in professional standards for the sub-sector, and this reflects the way in which the organisation was discussed by B001. The value in maintaining professional standing, and the recognition of this from a national body, was an important aspect of the connection. The only international relationship mapped in B001's cultural ecology was with the Born Free Foundation which was the

recipient of fundraising by B001. This again brings into play the issues of direction and purpose in ecosystem relationships - whilst the charity is an important connection to B001's values, it does not affect the core business. However, combined with the insights around the time volunteered for a local hospice, suggest that this micro-enterprise is motivated by a wider range of values and factors than those connected to the core business function. Importantly, this was only revealed by exploring the ecosystem map alongside the narrative on the business journey.

Reflections B001

The business owner considered their marketing provision to fall within the scope of corporate services, and whilst recognising that it was a creative industries sector did not describe their products and services with reference to this. This opens up the question of how wide the creative ecosystem should be considered to stretch, and whether an organisation like B001 is on the boundaries by providing creative services to non-creative industry businesses. This is somewhat outside the scope of this investigation, but a point worth noting about the usefulness of the ecosystem construct in relation to an industry sector.

B001 had spent time consciously developing and refining the business network, driven by a range of factors. The time taken to develop a functioning ecosystem is not reflected in any of the theoretical frameworks selected here. Nor do the ecosystem frameworks offer a way to account for the prior business experience of the owner-director, which has been a critical driver of the business direction and decision-making.

Ecosystem approaches do not seem to offer any means of distinguishing between positive or negative connections, nor the value ascribed to certain connected organisations. Across the three frameworks there are several relationships that are more significant than others but this is only revealed by examining the business journey. Furthermore there is no way of determining the purpose and value of the connections that are mapped. There are some relatively well-established relationships (charity donation recipients for example) that have no bearing on the conduct of the business but are important to the driving values of the business owner. For micro-enterprises with strong

social, charitable or environmental values, is there an argument that financial offsets related to this behaviour should be of more benefit than those given to larger enterprises? This is a departure from the focus of this study, and could be worthy of further scrutiny elsewhere, but the issue highlights the importance of understanding the range of motivators for a micro-enterprise in order to better support them. Linked to this was the issue of trust and the value placed on particular relationships - this was not easily visible in the mapping approaches but was of significant importance to the business owner in this case. The ecosystem approaches alone did not reveal these aspects.

There are instances in the B001 case study where the rationale behind the relationship might not be the same as the function defined by the framework - this is seen in relation to Chartered Institute of Marketing, and the Growth Accelerator scheme in Isenberg's ecosystem, and with the core contributor / supplier overlap in Moore's framework. This suggests that, as far as this case study is concerned, ecosystem frameworks do not allow an understanding for the reason behind specific connections. Building on from this, none of the frameworks show where and how one connection has led to another. This aspect could be an important factor in targeting support and policy initiatives, which is borne out by the point made by this interviewee that no support initiative had been found that was appropriate to the business.

B002: The more we support, the more we all gain

> *"Having a well-developed arts ecology – and I imagine it is similar within the business sector, competition is not necessarily a problem, we're all different, the more there is then the better the outcome for everyone. I believe that the more we can support the development of this ecology, whether that's supporting emerging companies, artists or new work, then I think we all gain. People then have an opportunity to start to see culture as an important part of their lives, something that they can value and feel they have a right to have access to".*

B002 is a performing arts organisation based in West Bromwich. At the time of writing, the organisation has 6 staff, and has grown from its origins as a funded project, to becoming a registered business and registered charity. The case study below sets out a timeline of the micro-enterprise drawn from available data sources and presents this data in relation to the theoretical ecosystem models.

FIGURE 7.6: B002 BUSINESS JOURNEY 2017 USING DATA COLLECTED FOR THIS STUDY

Business journey B002

The organisation began as a funded pilot project in the mid-1990s, and when this proved a successful model and concept, it was set up as a business in its own right. The organisation has a history of strong connections with funders such as the Arts Council, Heritage Lottery Fund and other private trusts, and the lead up to the Millennium saw an additional opportunity for grant funding as part of a national programme of cultural activity. This additional funding created opportunities for developing and commissioning in-house work, as well as acting as a broker for touring productions which remains the core activity of the business. At this point the business also registered as a charity.

The geographic focus for the business' activity also places a clear boundary around the work that is created or commissioned. The demographics of the population within the target geographic area provides the justification for the artistic work – any performing arts provision must appeal to the audience, based on what is known about them. To accomplish this, B002's operating model involves significant engagement with representatives from these local communities, which is a deliberate construction of the network and connections of the organisation:

> *"So where possible we make sure that the work we're doing employs local practitioners, both emerging and established, and we also support work that local practitioners are developing, this feeds in to support that broader arts ecology."*

This operating model had evolved throughout the micro-enterprise journey from a standardised approach to something that better reflected and acknowledged the community team that had been built up:

> *"So, rather than have a one size fits all, over the years we have worked towards knowing your [team], supporting them to develop the ideas, to raise funds and looking at how we can be flexible in that approach."*

Additionally, the company began to realise that the performance work available to 'buy in' did not always reflect the unique stories of the communities that they worked with and for. This prompted them to begin to create their own activity about, and within, specific places and groups:

> *"we started making work using the stories of the communities within the Black Country to create site-specific productions that reflected those communities."*

This approach was a change in model in itself and shows that B002 have actively created the ecosystem around them, from the individuals and organisations with whom they work to develop content, as well as their customer and audience base through more engaged working methods. These changes in approach created the need to work more closely with some of this wider range of performing arts companies in order to develop the creative content that would best meet the needs identified by B002's work with potential audiences:

> *"It always happens in partnership because we are such a small company we don't have huge resources – our partners bring additional resources, new influences and help keep our work fresh."*

The company also described more recent partnership work on major arts festivals as a 'gear change' during their journey. By 2005, a decade after the company had grown from a pilot project, the annual reports reflect the existence of investment income and more detailed accounts of the company activity. This suggests that a more strategic approach had been added to what the interviewee described as the 'evolution' of the company approach.

> *"We feel like we're constantly evolving, especially in economic terms. We have gone from being a company that worked very closely across four local authorities to a reduction in funding when we lost two of our local authority partners. I think we've always had to be flexible, that flexibility has been built in from the very start with the company trying not to be dependant on a huge*

team of staff, constantly fundraising and developing new partnerships, it's constant."

This flexibility in response to changes in public funding has also resulted in the company taking on more of what they describe as 'arts development' work within the region. The interviewee describes how, as local authority funding for this work has reduced:

"… we ended up by default, taking on that role more and more. It's an invisible part of the work that we do and it can take a massive amount of our time. We do it because we think it's important to try and lever in and support additional arts activity in the area. It goes back to that need for continued investment in the arts ecology. And for us it's important because the Black Country still feels like it really needs that."

From this description it is also clear that the company recognises and works within the 'ecology' terminology, and values it to the point that it will contribute unfunded resources in order to maintain it for the 'greater good', pointing out that "for us, there's a real ethos that more is better".

Over the past seven years the company has moved premises twice, and the staff count has fluctuated depending on the range of projects underway, all largely grant funded. To effect this, the organisation worked with an independent consultant to review the management structure of the organisation, maintaining a core element and also the ability to flex the capacity up or down as needed. In keeping with the earlier comment that change is a constant for the organisation, the next stage of work involves a wholesale review of the organisation structure and workplan, in line with the requirements of Arts Council funding.

"That is what we'll be doing this autumn, we are undertaking an organisational review to try and ensure we have the best staffing model in place to deliver our programme of activity over the next four years. Sustainability is always a key question with us."

There is some reliance on public funding at the core of the organisation model, whether from the Arts Council or other trusts and foundations. The organisation has taken on a member of staff to specifically focus on this aspect of business development, acknowledging that competition here is much fiercer in the current climate. This approach has broadened the range of funding bodies with whom B002 engage, expanding the ecosystem to take alternative funders and development organisations into account. The history of public and grant funding has led to a feeling of the organisation being 'trapped' in its current model and unable to increase its core funding now that a pattern has been established – despite taking on the additional 'invisible work' referred to earlier and expanding the organisation approach.

> *"So our core funding doesn't support our production and project strand which is a key part of our work. It does support the staffing and the programme of work with our promoters, but actually for any of the production strand we have to fundraise massively to make that happen."*

The company does place itself within what they describe as an arts 'ecology', which comprises the range of organisations that B002 connect with in order to develop and fulfil their artistic and business goals, as well as engaging with and improving the wider regional infrastructure of which they are part. Even within the West Midlands area there is variation in this infrastructure and support:

> *"I'd say there's been quite a shift in Birmingham, but I'd say that we've not really seen much change in the Black Country – there still needs to be much more investment to effect change in the Black Country. There's still a sense of sucking everything down to London although in terms of Arts Council funding there is more pressure now to address this."*

Ecosystem maps B002

The diagrams below set out the connections made by B002 during its business journey, using the categories within the three theoretical ecosystem constructs. The diagrams represent each different ecosystem at the time of writing and show the relative

geographic scale as far as possible. B002, as one of the more established case study organisations, has a wider range - and longer list - of connections than other cases, so it has not been possible to show them all here against the ecosystem maps. The connections that are shown are those with whom B002 has an established relationship over more than three years, which has been established by tagging each connection with the year in which it appears in company accounts. These flags were then tallied and the list of connections sorted from high to low. The top thirty organisations and individuals are included in the diagrams for this case study as indicative ecosystem connections.

FIGURE 7.7: B002 ECOSYSTEM MAP 2017 USING MOORE'S BUSINESS ECOSYSTEM

Moore %	International	National	Regional
Supplier	1%	1%	7%
Stakeholder	1%	3%	12%
Government and regulatory	0%	5%	9%
Distribution channel	1%	5%	9%

Customers	0%	0%	2%
Core contributor	0%	12%	24%
Complementor	0%	3%	5%
Competitor	0%	0%	0%
Standards bodies	0%	0%	0%

Using Moore's business ecosystem functions, the most frequently attributed category for B002 is that of *core contributor*, with over a third of the ecosystem made up of regional and national connections fulfilling this function. In the data sources used in this case study, the makers of creative content - core contributors to the overall creative ecosystem - were referenced frequently and their importance to the organisation model for B002 was also clear from the interview. Moore's *stakeholders* category, comprised of investors, trade associations and unions, was also significant in this ecosystem map, and this segment of B002's ecosystem includes non-public grant funders and networking groups that are specific to the region. There were more regionally based connections in this category than national or international, but there is a clear split between national sources of funding, and regional sources of support focused on networking. This could be an important distinction worthy of further exploration in order to better target support and finance to micro-enterprises in the sector.

Moore's *distribution channel* function, which is considered to provide routes to market, is the next most frequently tagged category in B002's business ecosystem. This is largely made up of venues, festival and other platforms for the content produced, and has a regional focus which would be expected given the mission statement of the organisation. The later expansion to national and international outlets is reflected in a static way by this ecosystem approach, and the fact that this was a development of the business model cannot be determined from this map. This raises interesting possibilities about the variations in ecosystem components at different business stages - as an established business, B002 has a particular profile in the ecosystem maps. Do other established businesses share this balance of ecosystem components in their profiles or does the variation depend entirely on the business model?

B002 had a relatively large proportion of connections in Moore's *government and regulatory* category, which parallels the *policy* domain of Isenberg above. These connections are predominantly related to sources of public funding, as above, but the framework as applied does not offer a means of distinguishing between the different reasons behind connections, in any category. *Suppliers* to B002 are spread across all three levels of geography but are predominantly located in the same region. This includes organisations providing education as this was determined to be the most appropriate of Moore's functions - as explained above, the tagging process considered the organisation's main function in relation to the creative ecosystem overall, so this attribution does not always indicate that the connection provided education services to B002 itself. This could be seen as a loophole in the ecosystem mapping approach and a potential area for further development of the model to reflect the main function of the organisation and their specific contribution to the ecosystem being mapped. Following the *suppliers* function, B002 had connections to a comparable proportion of *complementor* organisations, who supply products and services to the ecosystem as a whole but who do not act as *competitors* to B002 (this function was a zero count in this ecosystem map).

FIGURE 7.8: B002 ECOSYSTEM MAP 2017 USING ISENBERG'S ENTREPRENEURIAL ECOSYSTEM

Isenberg %	International	National	Regional
Support	0%	1%	2%
Policy	0%	5%	9%

Markets	1%	4%	15%
Human capital	0%	12%	31%
Finance	1%	2%	5%
Culture	1%	5%	7%

Human capital is the most frequently tagged of the domains, and this is largely regional with some national connections. Given the deliberate moves made by the organisation to develop its community presence, and portfolio of creative partnership work, the prevalence of Isenberg's workforce category is logical. The engagement of the company with target audiences should be reflected in the *markets* domain, which is split across regional, national and international connections. However, the data sources used for this case study did not make specific reference to individual audience segments or groups, so whilst the *markets* domain is significant, this is more reflective of the distribution channels and professional networks connected to B002 than the audiences. This breakdown is not visible with reference to the ecosystem alone, which suggests that there could be further amendments to the model as applied to an individual organisation in order to reflect the subtleties across any given domain. B002 had a range of connections to organisations tagged within the *policy* domain, which here includes public funding from sources such as the Arts Council and local authorities. The reliance on public and grant funding had been referenced throughout the business journey so this seems to be an appropriate mapping of this type of support. This is potentially misleading in that B002 had not engaged with any regulatory incentives or legislation that forms the rest of Isenberg's definition of this domain. B002 had a range of engagement with organisations fulfilling Isenberg's *culture* domain, which recognises visible successes (success is here defined as sector-specific). This includes regional, national and international festivals as recognised showcases of creative content, one of which the interview referred to as a particular step change in their business journey. The framework itself does not reflect the significance of particular connections over any others, which could be important in understanding the routes to better supporting the micro-enterprises that may, as in this case, be significantly affected by connections of a dramatically different scale and approach to their usual model.

The connections with organisations in the *finance* domain was limited, but had regional, national and international links, and this again included sources of grant funding

rather than the wider venture capital and debt finance that is also covered by Isenberg's definition. The nuances within categories are not well captured by the current model and this could be significant in understanding the finance and funding profiles of micro-enterprises, particularly in the creative sector that has seen much debate on the arts ecology and creative economy axis, as indicated in the earlier chapters of this thesis. There were comparatively few sources of *support* noted in this ecosystem map, and this is particularly interesting when viewed in the light of the interview, which discussed specific regional support networks and programmes. However these have been tagged by definition as *culture,* because of their focus on the visible successes in the sector, or as *markets* because they offer a means to reach an audience / customer. Isenberg's definition of *support* here covers the infrastructure and non-governmental institutions rather than networks and informal connections that, in the case of B002, provide support in a real and practical sense.

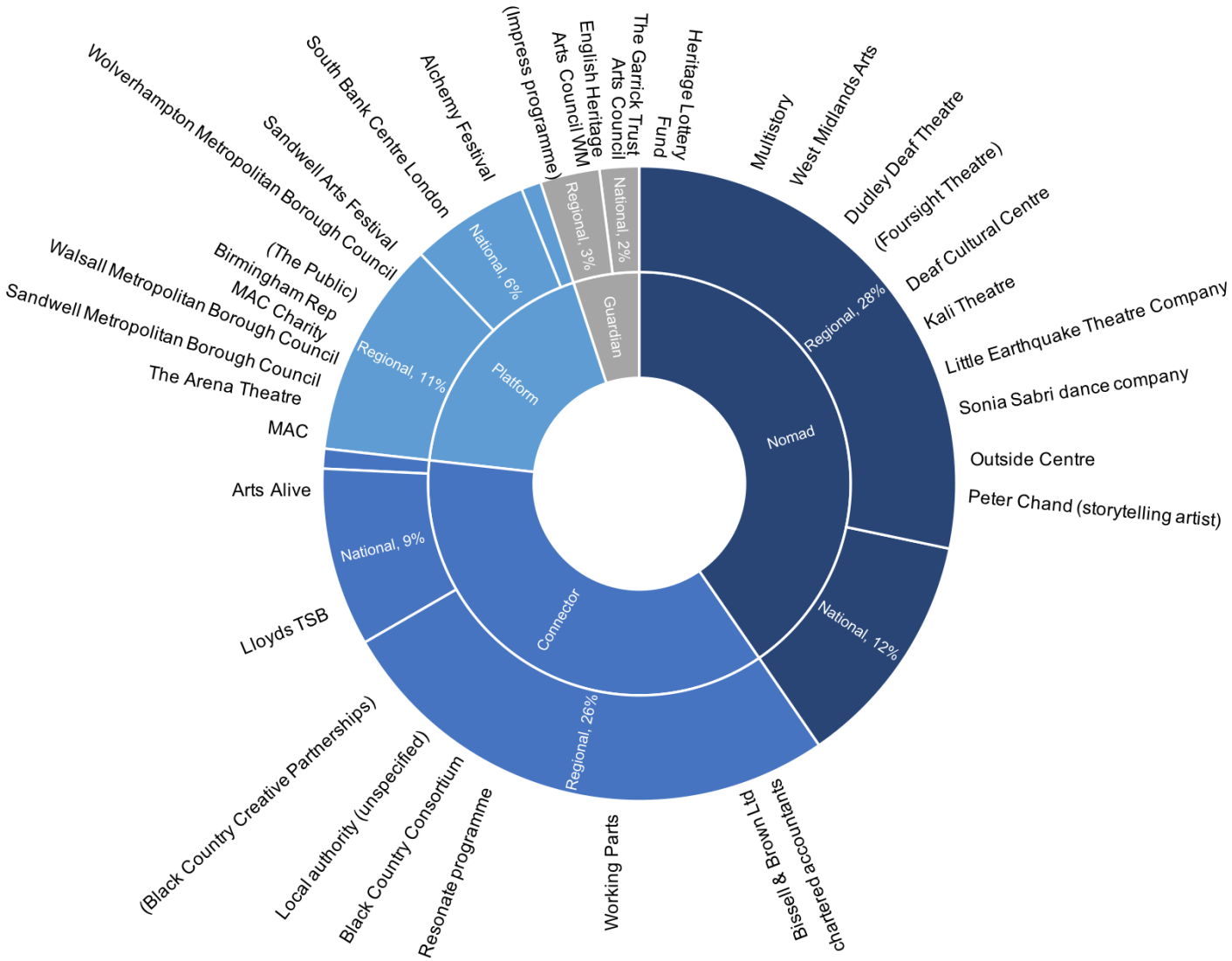

FIGURE 7.9: B002 ECOSYSTEM MAP 2017 USING HOLDEN'S CULTURAL ECOLOGY

Holden %	International	National	Regional
Connector	1%	9%	26%
Guardian	0%	2%	3%
Platform	1%	6%	11%
Nomad	0%	12%	28%

This model again shows the strength of the regional ecosystem for B002, with a large proportion of *nomads* [consumers and creators of content], which were notably lacking in the 'top-down' mapping models.

Reflections B002

This business has a specific geographic focus to its provision, and does consider itself part of the creative industries, with a very specific focus on theatre and performing arts. The ecosystems maps for B002 have a significant number of connections, both national and regional, which results from the length of time that the organisation has been in operation. The interviewee recognised the concept of an ecosystem, referring several times to the 'arts ecology' in which they work and to which they contribute, and particularly to the ways in which they carry out work to support and sustain this regional ecology despite this not being funded or part of their core activity. The strength and breadth of the ecosystem can be seen as a result of the business models adopted by the organisation.

There are very few duplicates across these maps and the secondary data-driven map of chapter four, which reinforces the points made in literature about the lack of visibility of the smaller organisations in the overall ecosystem. In several instances, B002 had connections to organisations who fulfilled a particular role within the ecosystem model, but the purpose of B002's relationship was not related to this ecosystem role. This was seen in the connections to Higher Education institutions, who fulfil a multiplicity of roles across the creative ecosystem but are only categorised with their primary purpose as education providers. This suggests that there are levels of nuance within categories that could be better reflected in order to understand, for example, the funding and finance profiles of micro-enterprises with several sources of income, as shown with B002.

The ecosystem models do not reflect the significance of any relationships either due to time or to their importance to the central organisation. B002 has relatively recent connections that have had a major impact on their business approach or have become gatekeepers to a further range of relationships and opportunities. This aspect is not visible within the models as they stand and developing a way to reflect this could be a significant step in better supporting the micro-enterprises that are arguably more vulnerable to their

external environment. Additionally, these mapped summaries are cumulative, and the development of relationships over time is particularly relevant to an organisation such as B002 that has been in operation for over twenty years. Taking this forward, do other established businesses have a similar balance across the ecosystem components, or does the variation here depend on the business models adopted?

B003: Why shouldn't all cities have publishing voices?

> *"I guess kind of – for me, I feel like, what I'm getting out of it is I like running a business, and I like creating pretty things, and that is what gives me satisfaction."*

B003 is a publishing micro-enterprise based in the Jewellery Quarter area of Birmingham. A limited company since 2013, B003 publishes illustrated poetry pamphlets. The business has developed from a single author collection with in-house illustration to regular calls for anthologies. The business owner is the only employee of the organisation, but now employs freelance contributors to edit, illustrate and promote different aspects of the business.

FIGURE 7.10: B003 BUSINESS TIMELINE 2017 FROM DATA COLLECTED FOR THIS STUDY

Business journey B003

The business owner began their career with a portfolio of freelance work in copyediting and events support, which included some work for a major publishing house. This then turned into a full-time position, but, as the business owner describes, “I could see where my future was going, and it was just slow and … sad”, so she took the decision to leave. This prompted her to reflect on career options that would make her happier – personal satisfaction being a key motivator at this point. Although the business idea developed over a number of years before the organisation was formally registered, the initial focus of the work was twofold; making and selling sewn craft items along with a publishing ‘arm’. The thinking around this continued to evolve, particularly with support from a mentor following a Princes Trust business support course. This advice encouraged the business owner to focus on, and develop, their work experience in a major publishing house, without detracting from the value drivers that had been expressed. The original vision of the business owner was to work closely with a friend and colleague and share their talents in illustration and poetry writing respectively, ultimately running the business together. This underpinned many of the value drivers of the business, as the owner explains:

> *“I feel like I wanted to give her half of it and say let’s do it together because she has helped to build it, a lot of the values of it are values we talked through together based on her experience of sending out her poems and her editorial skills. […] we talked a lot about how we would treat the authors and the readers and the audience. And that feels like the basis of the business”*

The owner explains that some of these driving values were implicit, in the main, and remained unpromoted in order to normalise them, rather than promote them and thus highlight that they were different:

> *“So like one of them […] was about having a woman at the front of a publishing company and also a BAME woman, but the point is that I wanted to make it normal, so I kind of didn’t say anything. […] But I just thought – kind of like - is*

it not enough that I am here? […] I didn't feel comfortable talking about it but I also thought I shouldn't have to, that's surely what, where we're all working towards."

These values focus internally, in some senses, driving the business approach from within, but equally they reflect on the position of the business within the wider publishing sector, and make an important statement about the motivating factors for the business owner in this wider context:

"Yeah, I guess increasingly I've thought about – well, the publishing industry is looking at itself, you can see in the Bookseller emails every day someone is saying something about how publishing has got to step up, and kind of be more regionally diverse, and, ethnically diverse, but it's really slow. I feel like it's another one of the ways where I've just kind of stepped out of the traditional routes and thought well I am just going to do it, and just see what happens, because I can't wait for everyone."

The business owner had been reassured through the Princes Trust 'exploring enterprise' course that she had thought of the main issues involved in the ongoing running of a business. However, there were different challenges in developing a sustainable business whilst staying true to the implicit and explicit values explored above:

"I want to create an alternative to the standard routes to publication, which involve networking and being in the 'in crowd', so that was the first anthology and that kind of grew, so yeah, just a feeling of – the restrictiveness of the current system and just wanting to break it by doing something different and seeing if – and showing that that could work, as well."

The business owner had tried to remain true to her initial approach of removing barriers to participation for those who were new to poetry or unfamiliar with the established routes to publication. This had added to her workload, and as she acknowledges:

> *"Over that time I've understood why the [established] system works – it is annoying dealing with authors, you sometimes do want them to be filtered through agents, but it is really valuable to not have that because not everyone knows how it works."*

Having decided against a 'traditional' paid submission process in order to encourage new and alternative authors, the main challenge was coming up with another means of sustaining cashflow and keeping the submission process open and inclusive. This led to the creation of a 'club' as part of the author submission process, which allowed prospective authors to submit poetry to any anthology call in a calendar year in exchange for buying a single book (physical or digital) from the existing catalogue. This has been commented on (positively and negatively) by others in the industry as a deviation from standard practice. More 'traditional' sales routes through trade catalogue organisations remain in place, but this direct connection and point of sale has had the desired effect of smoothing out cashflow and creating a sense of inclusivity.

During the interview, the business owner discussed suppliers and sources of support, but also reflected on competitors and others within the West Midlands who worked in the same creative sub-sector.

> *"I've just thought more about how… like it's stupid, why doesn't Birmingham have a publishing scene? There's like a few, there is an academic publisher here, there's are a few, like cottage industry, hobby publishers. But it's a really big city – why shouldn't all cities have people publishing voices?"*

This led to further discussion of the motivators and drivers for B003 in this context, and the reflection that "publishers do to some extent influence taste, and culture", so the idea of there being more publishers in the same space was welcomed "because then we can get an even wider range of voices". The business owner also reflected on how this benefitted readers, authors and publishing more generally by bringing in new and varied voices:

> *“ultimately how are we going to get more interesting people at the top of the big publishers if they’re not starting somewhere?”*

To address some of the workload issues that had arisen over time, the business owner had expanded her stable of freelance editors and illustrators. This was done largely through targeting individuals whose work was known and ‘fitted in’ with the approach of B003, rather than more formal recruitment routes. One approach had been to source illustrators by finding examples in magazines whose style matched that of B003, and directly approaching individuals whose work was featured. Directly employed staff growth would be a helpful next step, and whilst B003 had considered the options for this, the business had not achieved the cashflow and financial security to be able to take action on this, which has an impact at personal and business levels:

> *“I drew up a plan a few weeks ago when I was thinking about the office, and I was thinking how many people would I want, and I was thinking 7 would be an ideal number for me, not all full time, but I think 7. […] My boyfriend looked at it and said “oh the scary thing is that you currently do all of this” and I was like… yeah…”*

Ecosystem maps B003

The following sections map and describe the ecosystem of B003 at a specific moment in their business journey, using the three theoretical constructs of entrepreneurial ecosystem, business ecosystem and cultural ecology.

FIGURE 7.11: B003 ECOSYSTEM MAP 2017 USING MOORE'S BUSINESS ECOSYSTEM

Moore %	International	National	Regional
Supplier	0%	11%	3%
Stakeholder	0%	14%	3%
Government and regulatory	0%	5%	0%
Distribution channel	3%	14%	0%
Customers	0%	0%	0%
Core contributor	0%	3%	0%
Complementor	3%	22%	5%

Competitor	0%	14%	3%
Standards bodies	0%	0%	0%

The business ecosystem map for B003 is largely national in scale but does have more of a balanced profile across the range of functions set out in Moore's approach. *Competitors* and *complementors* form the majority of the functions, and within these areas the majority of organisations fall within the publishing sub-sector. B003 has turned one otherwise *competitor* (Valley Press) into a *stakeholder* through a positive business relationship which has allowed them to share resources and provide each other with peer support. As well as underlining the relational nature of the categorisations in the Moore approach, this particular insight demonstrates the ability of even a young micro-enterprise to reshape its ecosystem. In two cases, B003's relationship with national *stakeholders* was as a source of funding, one as a prize award and another as a loan from the parents of a friend. In both cases, the purpose of the relationship differed from the categorisation demanded by this ecosystem approach, which offers scope for refining the model. The remainder of the national *stakeholders* were, again, those with whom B003 had a connection based on awareness of their position and occasional use of their services, rather than a formal relationship. The only regional *stakeholder* was a family member, who occasionally worked for the business and was a source of advice as a sounding board rather than being a professional in the same field. This underlines the importance of informal as well as formal support, and whilst not the core focus of the study, this has important implications for the focus and nature of business support.

Organisations categorised as *suppliers* made up 14% of B003's ecosystem map using this model, the majority at a national level. The only regional *supplier* in this map was a Higher Education provider, and the relationship here was incidental (as the employer of a family member) rather than providing a direct product or service to B003. Whilst the link is a valid part of B003's ecosystem, the significance of the connection, in terms of the proximity to the business model, is not apparent from the ecosystem map alone.

B003's connections to organisations fulfilling the *government and regulatory* function were all at a national level and had distinct regulatory roles, as seen in the case

of HMRC. The Arts Council connection, as with other examples, was not for the sole purpose of regulation, and for B003 had provided training and financial support over time. The variety of roles provided by single organisations can make the ecosystem seem to be an over-simplified approach and suggests the fluidity and richness of even small ecosystem networks.

There is a relatively small proportion of *core contributors* without whom the business would, presumably, struggle to create new content, and this places B003 as a cultural / creative intermediary in some senses. As noted above, B003 has developed its relationship with these individuals and organisations through connections with others, which is not reflected in this mapping approach. There were no organisations fulfilling the *customer* function as mapped for this case study, but given the business model adopted by B003, all of those counted as 'author' in these tables can also be counted as 'customer'. B003 did not keep records of individual purchasers but did refer to book launch parties and target sale numbers, as well as being cognisant of cashflow and the need for customers in order to manage this.

There were a number of organisations in this ecosystem mapping that fulfilled the role of *distribution channel*, a function vital to that of an intermediary for content, as B003 is positioned to be. However, not all of these organisations were channels to market for B003, but instead formed part of the wider ecosystem and sector network without reflecting a formal relationship. There were no organisations mentioned or otherwise featured in this case study that fulfilled Moore's *standards bodies* function.

FIGURE 7.12: B003 ECOSYSTEM MAP 2017 USING ISENBERG'S ENTREPRENEURIAL ECOSYSTEM

Isenberg %	International	National	Regional
Support	0%	5%	3%
Policy	0%	5%	0%
Markets	3%	38%	3%
Human capital	0%	8%	5%
Finance	0%	3%	0%
Culture	3%	22%	3%

Predominantly national in scale, B003's entrepreneurial ecosystem map is dominated by organisations within Isenberg's *markets* domain, with the second most prevalent domain being that of *culture*. Many of the organisations referenced within the domain of *markets* did not have formal working relationships with B003 and are categorised as such due to this being their role in relation to the wider ecosystem. For B003, many of these larger national organisations fulfilled a role within what Isenberg would categorise as the *culture* domain, providing an example of a larger successful organisation (whether or not B003 was motivated to emulate their working practices). This insight was only revealed from the qualitative exploration of the business journey, and without this, the ecosystem map could be misleading. This suggests that further work could be carried out to develop an approach to mapping the ecosystem of micro-enterprises that could capture this level of detail. Within the culture domain, B003 was aware of the listed organisations as significant within the sub-sector, but had no direct relationship with them, or vice versa. The exception here was the Michael Marks Award, which had been an aspiration of B003 since the business started, and this was achieved in 2015. In this regard the ecosystem approach does not allow for recognition of the actual relationships nor the direction of these to be reflected, which suggests further possible directions for developing the approach.

There was some engagement with organisations occupying the *policy* and *support* domains, but significantly no links with organisations fitting Isenberg's *finance* definition. Financial support had been provided through a loan from the parents of a friend and collaborator and is also reflected in the Arts Council support and the Michael Marks Award, but the latter organisations do not fit the Isenberg definition of *finance*. This suggests that at micro-enterprise level, there may be much more flexibility in the approach to ecosystem development, and that, as seen in other examples, the function of a larger organisation in the national ecosystem might be different to the way it engages with smaller businesses. Whether this is driven by the micro-enterprise or the larger organisation depends on the circumstances of both and is worthy of further investigation.

FIGURE 7.13: B003 ECOSYSTEM MAP 2017 USING HOLDEN'S CULTURAL ECOLOGY

Holden %	International	National	Regional
Connector	0%	35%	3%
Guardian	3%	22%	5%
Platform	3%	22%	3%
Nomad	0%	3%	3%

B003 had a relatively even balance of connections across the *connector*, *guardian* and *platform* roles within Holden's cultural ecology. B003 would themselves be classified as a *guardian* within the cultural ecology, along with many of the other organisations that sit within the publishing sub-sector. The ecosystem for B003 is fairly equally distributed across the cultural ecology roles, with the *nomad* role (creators and consumers of culture) being slightly fewer in this example. The routes to finding these connections has been largely informal, as described above, and this sequential process is not visible in the mapping approaches above. The data collection approach could be modified to better capture the breadth of connections across creators and consumers of content, which would also affect the profile of Moore's *core contributors* above.

Reflections B003

Overall, the ecosystem mappings for B003 are national rather than regional, and based on the case study documents and interview, draw on a range of support and influences over time. The majority of the ecosystem features as mapped here had not appeared in the secondary data-driven mapping of the earlier chapter.

The temporal aspect to the ecosystem (or the influences within it) is interesting in this case, as the interview revealed that some aspects of the business owner's journey from years ago had influenced decisions made more recently. As with some of the stakeholder discussions and other case study sites, the idea that 'more is more' came through in this case study perspective of the ecosystem. This organisation has developed and refined its ecosystem during the business journey, with geography being less of a driving factor than the match of values and the services supplied. There were a number of connections in B003's ecosystem whose purpose differed from the categorised ecosystem function, suggesting that there is flexibility in the micro-enterprise approach to connections within the ecosystem. The routes to making connections have been largely informal, and this angle is important for understanding and supporting the micro-enterprise but is not something that the constructs above can easily reveal. Likewise, the ecosystem maps do not show the ways in which B003 has developed its network by building on and through existing connections.

B004: The arts ecology is political

> *"I really think that the big siloes of arts are … having seen that side of things… the big siloes of arts are sucking up lots of money and all grew from the early 60s. I think there is an incredible challenge in winding some of those down and liberating money to seed – if you're talking about an ecology - the sort of like, the evolving plankton… and that's political, and that's going to be an issue."*

B004 is a theatre based in Coventry to the western side of the West Midlands. A limited company and registered charity since 2012, B004 is a receiving theatre venue as well as having a clear focus on arts and development related to the local community. The business now employs seven full- and part-time staff and has a significant volunteer base.

FIGURE 7.14: B004 BUSINESS TIMELINE 2017 FROM DATA COLLECTED FOR THIS STUDY

Business journey B004

The theatre is based in a locally listed building, formerly part of the city college and originally designed and built as a lecture theatre. During the Second World War, the theatre space was used by the Council for the Encouragement of Music and the Arts for public entertainment, establishing one of the earliest relationships with the Arts Council of all the micro-enterprises in the study. The theatre has a long history of community and repertory theatre use and was refurbished and rewired in the late 1980s. However, by the 1990s, financial pressures in the local authority, and the relocation of college provision, had a significant impact on the theatre, and despite an Arts Council grant in 1997, the theatre went dark (closed operations) in 2008. A community campaign, testament to the links to the local area, led to a Section 106 planning condition being attached to the sale of the building which was designed to protect the theatre space for the community. This was resisted by the building owners who had set out a redevelopment plan that did not sit easily alongside this requirement. A Community Theatre Trust was eventually set up in 2010 and the theatre was incorporated as a charity in 2012. At this point volunteers from the community began to work on the refurbishment of the building prior to re-opening in 2013. The theatre was unable to immediately present the high standard of repertory work that had been seen in the 1950s, so the majority of the shows presented were bought-in or by local and regional amateur dramatic companies. This led to operational challenges for the team:

> *"when this place then became, erm, they incorporated… they, it was great for a little while with the am-drams, but what happened is then that the operational side is a challenge because they had to constitute themselves, as a charity, they had to become more structured so that they were able to think about long term planning and maintenance of the building and what-have-you."*

The first full-time paid member of staff was employed from 2014, having worked internationally and brought a wide range of insights from previous experience and literature. This fed in to the operational approach of the organisation to an extent but had not yet had time to filter in. to the strategy and planning approaches. For B004 as an

organisation, the staffing structure had been forced to change, along with other administrative elements, when the building owners went into receivership in 2014 and the premises were put up for commercial sale. This presented a threat to the future of the organisation but also offered opportunities to develop a more positive working relationship with any new owner.

> *"[The organisation] had also in 2014 had developed an artistic vision, which was for erm, health and wellbeing really, to working with those communities who were disengaged, so by the time I came along all of those pillars were in place and that was really compelling to me."*

During this period the Board of B004 had also been working to develop the reserves position of the organisation, and by 2017 the financial situation was more stable, and there were a total of seven full-time and part-time staff employed, as well as a large number of engaged and active volunteers. The Board had also concluded negotiations over their lease of the theatre space within what is now a commercial development and were able to focus some of their attentions on future planning. This included a community consultation, in line with the organisation's focus on wellbeing and community. As described by the interviewee, there were, at this point, two strands of work in place:

> *"One is to articulate the needs gap analysis for what we could do in the east wing. […] And the other part was to start to think strategically about more about how we structure this organisation and how we clarify what the vision is moving forward. But in all of that, none of this has been predicated so far on receiving grant funding. It's all on earned money."*

The focus of development work for B004 starts with their communities and target audiences, and seeks to create work that will engage and attract these groups:

> *"So we're, now, starting to explore and think of who we're going to partner with and how we're going to service the chosen constituency rather than just programming stuff and hoping it's what they want."*

This differs from some approaches wherein the art form is taken as the central point and the goal of marketing and audience development is to educate and attract groups to the venue. This was seen as an offensive approach by the interviewee whose view was that audiences, especially of a younger generation, will have dramatically different attitudes to art and engagement, and it would be important for cultural and creative organisations to provide resources and inspiration, rather than a packaged solution:

> *"You can provide some other resources and yes there will be some expertise - but stop thinking because you've been here doing it for this long you've got all the answers, you don't, the question's changed completely let alone the answers."*

The next steps for B004 are to redevelop and refurbish some of their physical space to provide a community hub for multi / mixed artform engagement and exploration, as well as some café and social space. The organisation are exploring ways of securing the resource for this, whether through artist subscription / rental of space, or through some element of grant funding. However, the interviewee in particular was very clear that this public funding model was not the main solution, and that this would have an impact on those developing their artistic or creative careers:

> *"But I think more and more it's very handy for people coming in to the arts to understand that it's not going to be supported by public funding long term, and they really need to find a way to erm, support their career, and you know, and make a living from it maybe, and then the living can support their passion… It's a kind of paradigm shift, kind of confronting to people who've grown up at a time when they've been able to apply for grants for what they're interested in doing."*

Additionally, as part of this approach, the vision for future development of the organisation is that of a mixed economy in which creative sub-sectors have less relevance than creative output and processes. This, alongside the community focus of the

organisation, is intended to develop a creative and social space that can prompt future work and collaborations.

Ecosystem maps B004

Using Moore's functions, the ecosystem map is focused on *core contributors* with *complementors* and *stakeholders* also significant proportions of the whole. There were several international organisations mentioned, many of which served as inspiration for the general manager, in the main, although one had specifically been engaged to perform in the theatre. The majority of the *core contributors* referenced were located in the same region as B004, which again supports the business narrative that it is a locally and regionally connected organisation. Most of these organisations had been contracted by or otherwise provided their services to B004.

FIGURE 7.15: B004 ECOSYSTEM MAP 2017 USING MOORE'S BUSINESS ECOSYSTEM

Moore %	International	National	Regional
Supplier	0%	4%	8%
Stakeholder	2%	10%	8%
Government and regulatory	4%	2%	4%
Distribution channel	0%	2%	6%

Customers	0%	0%	0%
Core contributor	4%	8%	20%
Complementor	2%	6%	10%
Competitor	0%	0%	0%
Standards bodies	0%	2%	0%

Moore's category of *stakeholders* was the next most frequently referenced, with similar proportions of regional and national connections. The majority of these are funders or elements of infrastructure such as banks and accountants, which are not located in the same industry sector but are frequently connected to it due to funding models. There are also some connections that might be better described as 'influencers' since their work shaped the thinking of the interviewee, which in turn affected B004 as an organisation. This approach is not specifically captured in Moore's ecosystem. Organisations and connections tagged as *complementor* were the next most frequently referenced, with slightly more regional connections than national. This function included charities for whom B004 had raised funds, which is discussed above in relation to corporate social responsibility. This raises further discussion points about how the ecosystem captures what might best be described as untraded interdependencies.

The *suppliers* function featured many regional education providers, which has parallels with the *core contributor* function and B004's drive to be locally and regionally engaged. The category also featured a national company supplying box office software across the entertainment sector. This raises the observation that there may be fewer organisations supplying more resource-intensive or specific activities, as seen here with sector-related software, and that by necessity an organisation must reach outside its own region to avoid 're-inventing the wheel'. This is also the case for *policy* organisations such as the Arts Council, who featured in B004's ecosystem at a national level. In the policy category B004 also had international connections but, as discussed above, the business journey narrative reveals that these relationships represent the interviewee's prior experience as a source of inspiration, and not a legislative or regulatory connection for B004's current operations. As discussed in relation to other cases, the fact that an ecosystem develops over time is a recurring theme in literature and in empirical investigation, yet this is not reflected in the models.

B004 had connections with a small number of *distribution channel* organisations, mostly within the region, which again supports its stated aims of being a locally and regionally connected organisation. The ecosystem models are clearly capturing this aspect of the business model but cannot determine the strength or direction of the connections. In the case of the Belgrade Theatre noted above, there is no formal or contractual relationship, but the interviewee was very clear that they, and the Belgrade, formed a part of the same ecosystem. From this interviewee's perspective, the ecosystem was at city or regional level, rather than the case study organisation being at the centre of the 'map'.

There were no reported connections to specific *customers* or *competitors* in this model of the ecosystem, although the topic of audiences had been discussed in the case study interview. The interview focused on the work that the theatre had done to date to develop strong and extensive relationships with volunteers and local communities. This was seen as the customer base for the organisation and an asset in terms of the business approach. Implicitly, the approach of B004 also tended more toward collaboration and community than competition.

Predominantly regional in scale, B004's entrepreneurial ecosystem map is dominated by organisations within Isenberg's *human capital* domain, with the second most prevalent domain being that of *support*.

FIGURE 7.16: B004 ECOSYSTEM MAP 2017 USING ISENBERG'S ENTREPRENEURIAL ECOSYSTEM

Isenberg %	International	National	Regional
Support	0%	12%	8%
Policy	4%	2%	6%
Markets	0%	4%	6%
Human capital	2%	10%	25%

Finance	0%	4%	6%
Culture	6%	2%	4%

The group of *human capital* connections, which Isenberg defines as providing education, training and workforce elements, was the most significant proportion of B004's ecosystem, representing a quarter of all the connections overall. The majority of these connections were theatre and performing arts groups and businesses located in the same region as B004, which supports the organisation's stated aim to be a locally and regionally connected organisation, with strong community-focused content and suppliers. Within this category at regional level were also a number of education organisations, with whom B004 worked to establish this community focus. At a national level the profile of connections was comprised of producing organisations, whose services were bought in to the theatre venue. This also ties in with the business approach of a receiving rather than a producing venue.

The *support* domain, representing 20% of the connections in this map, had a larger proportion of nationally based organisations, many of which had no formal working relationship with B004 but formed a source of inspiration or ideas generation, according to the interview. In this regard, their categorisation in relation to B004 would be better served by the culture domain, but the approach taken has been to use the most appropriate categorisation for the national creative ecosystem. This suggests that there could be a mismatch between the roles of organisations at national and at operational level. At a regional level, the infrastructure element of Isenberg's support definition was covered, and also the presence of charitable organisations outside the creative sector with whom B004 had a relationship based on fundraising for, not receipt of funds from. This element of 'directionality' is not captured in the current ecosystem approach. Furthermore this fundraising was not for the purpose of economic value creation for B004 and could be seen as an act of corporate social responsibility with wider cultural or social value; again an aspect that is not captured by the current ecosystem models.

The *culture, finance, policy* and *markets* domains were relatively evenly balanced across this ecosystem map, each occupying 10-12% of the overall ecosystem map. The *finance* and *markets* domains are reflective of organisations and connections that work

toward B004's operational and strategic goals, both national and regional. In these cases the organisations also fulfil the same type function for B004 as they do for the national ecosystem as a whole. For the *culture* and *policy* domains there is a more theoretical picture, with many of the organisations being featured as a result of the interviewee's previous experience or research and planning approach. This was particularly true for the international organisations featured in the map. This suggests that this approach to the ecosystem might be capturing tacit knowledge held by employees of an organisation, but there is no means of identifying this distinct from other connections in the current approaches.

FIGURE 7.17: B004 ECOSYSTEM MAP 2017 USING HOLDEN'S CULTURAL ECOLOGY

Holden %	International	National	Regional
Connector	4%	18%	18%
Guardian	2%	2%	2%
Platform	2%	4%	14%
Nomad	4%	10%	22%

The role with the highest proportion in B004's map was that of *connector*, a role that circulates resources around the ecology. B004's connections in this category were evenly split between national and regional organisations, however the functions fulfilled by these organisations was more of a mixed picture. The connectors for B004 comprised funders, policymakers, education providers and service organisations, suggesting that the connections here were across and outside the creative industries. This did align with the narrative discussion of the business journey for this micro-enterprise.

B004's cultural ecology map also has a high proportion of *nomads*, with many of these content creators or consumers being regionally connected. This was the clearest of Holden's roles in relation to B004, with all of the organisations providing creative content or inspiration to the case study organisation. All of the connections within this category would be classed as creative industry businesses or individuals, which aligns with the suggestions above that *nomad* is the clearest role specific to the creative sector. There were fewer *platform* organisations and connections in B004's map, and these were predominantly regional. This could represent competition to B004, who would themselves be classified as a platform within the cultural ecology, as they are a venue-based organisation. There was no sense of this, however, in the interview, with the interviewee discussing collaborative approaches to festivals and other creative venues in the city as part of the ecosystem to which they contributed. In addition to the creative industry links in this category, there were also connections to property developers and charitable organisations. As shown in the timeline and business journey above, B004 had experienced a turbulent journey in securing the physical space belonging to the organisation, and these connections with property developers represent both positive and negative aspects of this journey. The categorisation process alone cannot reflect this.

The final role of *guardian* in the cultural ecology did not have a large proportion of connections in B004's map, and these were evenly split across regional, national and international scales. The purpose of these connections varied and included a research project used as a source of insight in B004's strategic planning, and the membership of a national representative organisation.

Reflections B004

The majority of organisations that made up this micro-enterprise mapping were additional to the top-down ecosystem mapping of the earlier chapter. B004 clearly identified with the creative industries but did not describe their work as restricted to theatre or the performing arts. Instead they saw their future development as more integrated with the wider digital and creative field. The mapping of the ecosystem was largely related to theatre and performance-related connections, suggesting that this repositioning had yet to take place, but this does raise a question over to what extent a creative ecosystem needs to reflect existing sub-sector and art form categories and divisions.

There were some differences in perspective between the organisation-focused documents and the background and experience of the interviewee, who brought international and literature-based insights to the interview that might not be held within the 'body' of the case study organisation. This has implications for mapping the tacit and explicit knowledge(s) of an organisation. As with other case studies, there are organisations in the ecosystem map whose function in relation to the case study organisation differs from the categorisation for the national creative ecosystem. This suggests that there could be a mismatch between the roles of organisations at national and at operational level. Furthermore, in relation to the positive and negative connections around property development discussed above, there is a potential need for the mapping approach to reflect whether connections contribute to the growth of the ecosystem or detract from it by negatively appropriating resources.

Perhaps most significantly, the interviewee did not see the case study organisation as the centre of the ecosystem, instead implicitly discussing the local and regional system as one to which they contributed. This raises a discussion point around scale - at which point does an ecosystem map contribute equal levels of understanding and meaning to the organisations within it, and to policymakers and other support initiatives seeking to influence it?

B005: Building meaningful relationships with audiences

> *"The company is over 40 years old and under different artistic directors the focus will shift slightly whilst staying true to those core directions – sometimes it is more about working with communities, sometimes about making urban audiences more aware of rural issues."*

B005 is a theatre company based in Shropshire to the western side of the West Midlands. A limited company since 1983, B005 is a producing theatre company that has developed from its origins as a touring Theatre In Education (TIE) company in 1974. The business now employs eight full-time and one part-time staff as well as freelance associates for additional support where required.

This case study is based on documents obtained through public records, and an interview with the Managing Director. Documents in the public domain date back to 1997, which establishes the starting point for the business timeline shown below. The business journey is a narrative exploration of the timeline period, aiming to build a picture of the ecosystem that has been created by and for the organisation throughout this timeline.

FIGURE 7.18: B005 BUSINESS TIMELINE 2017 FROM DATA COLLECTED FOR THIS STUDY

Business journey B005

The organisation was created in 1974, at which point the Arts Council had identified a lack of theatre provision in the region, creating B005 as a touring Theatre In Education (TIE) company. For the first decade the company worked as a touring organisation with a core team of staff, becoming formally constituted by the 1980s and taking on formal leadership roles (artistic director, executive director) and a resident writer. This latter appointment signified the start of the company's commitment to the artistic and community vision that has been the core driver of the approach:

> *"[It is] always the artistic that drives it, and the business side is about deliverability – the model has to work, but the driver will always be the creative. And then as a rule we try not to make up projects for funding streams, we try and always know what we want to do and identify a need."*

In the late 1990s (the point at which Companies House documentation also begins) a new artistic director was appointed, and shortly afterward the company experienced a major financial difficulty in the form of a 50% cut from their main funder. At the turn of the millennium, the company also took a strategic decision to work toward Investors in People (IiP) status as an organisation, which made a statement about their values and operating principles. The company engaged specific business support from consultant organisations to address the financial situation and to work towards, and achieve, IiP status in 2002. This market research also led to a revision of the business approach and the implementation of a new 'writing policy' to source and develop work.

Since 2002, the company has developed work with, and the careers of, several (now) high-profile writers, suggesting that B005 has acted as a significant development hub for this creative content, and also highlighting the importance of time for development of career paths within creative sector. The company also responded to its environment and particularly the comment from a high-profile journalist that there was a risk of "cultural apartheid" in Britain's rural communities. The company responded to this with a specific commission working with the BBC, a writer's centre and a group of new writers and the

impact of this was recognised in the sector at the time when the show won a South Bank Award. As well as these developments marking a move away from Theatre In Education work, the company also expanded the geographic scale of theatres and venues in which they placed work, building up from village halls to established theatre venues in the UK and beyond. After a period of relative staffing stability, the first new staff appointment in nine years was made in 2007 with the appointment of a new artistic director. The interviewee describes the impact of this appointment, although this was before her time in the organisation:

> *"There was quite a big shift when (the previous artistic director) came; staff had been here for quite a long time and the model wasn't quite working, the overheads were quite high and the work being produced wasn't quite enough, they had a reshuffle and slimmed the staffing down."*

In addition to the appointment of this new artistic director, a further motivation for a change in business model came from the funding arrangements, which, as the interviewee describes, were dominated by Arts Council funding. There was a "push" from this main funder to diversify income streams, so earned income has become a more significant proportion of B005's financial profile. This built upon the move from "free at the point of access" work in village halls to the inclusion of a more commercial theatre-based approach as described above. However, there is some values-based resistance to taking this commercial approach further, because:

> *"at the moment it feels like earning through corporate events or a profit-driven arm feels like a step we wouldn't want to take and would take us away from our core aims - fundamentally we have always been about high quality theatre with and for rural communities"*

Further financial support has been developed through engagement with a range of trusts and foundations as funders. This has broadened the income profile of the organisation but maintains some level of reliance on grant funding. Since the more radical changes experienced in the early 2000s, B005 has not sought specific development and support advice from agencies. Instead it has developed its engagement with networks

and representative organisations such as the National Rural Touring Forum and the Independent Theatre Council. This has been useful for the organisation in obtaining support on networking and legal advice, respectively. The next steps for B005 relate to their status as an Arts Council National Portfolio Organisation, which brings with it particular requirements for equality and diversity monitoring and data management. Within this funding frame, however, the organisation retains a clear focus on the aspects that make its work meaningful, seeking to deepen its approach rather than broaden it further:

> *"The next five years will be about embedding what we do and building more meaningful relationships with audiences. We tour successfully but it can feel a bit shallow – we are in and out quite quickly so want to develop relationships."*

In taking this approach, B005 also recognise that, to date, the strength of their working relationships has been with writers and creative content makers, and not the consumers and audiences. The strength of these relationships has been a foundation of the operating model of the organisation, which is focused on engagement with the human resource that makes the creative content for which the company is recognised.

Ecosystem maps B005

The following sections map and describe the ecosystem of B005 at a specific moment in their business journey, using the three theoretical constructs of entrepreneurial ecosystem, business ecosystem and cultural ecology.

The chart below shows the breakdown of B005's ecosystem using Moore's functions and the geographic scale of connections.

FIGURE 7.19: B005 ECOSYSTEM MAP 2017 USING MOORE'S BUSINESS ECOSYSTEM

Moore %	International	National	Regional
Supplier	0%	6%	5%
Stakeholder	1%	8%	3%
Government and regulatory	0%	3%	3%
Distribution channel	1%	13%	7%
Customers	0%	0%	1%
Core contributor	2%	27%	12%
Complementor	0%	7%	3%
Competitor	0%	0%	0%
Standards bodies	0%	0%	0%

The business ecosystem view shows a significant number of *core contributors* and some *distribution channels*. This has some parallels with Isenberg's entrepreneurial ecosystem map below, in that the makers of content and the channels or markets used to communicate are significant; and the breakdown of Moore's *government and regulatory* category is identical to Isenberg's *policy* domain below. Moore's functional approach does offer a greater breakdown of the features includes in Isenberg's *markets* domain through the inclusion of the *distribution channel, supplier, and customer* elements. In the mapping below, B005 seems to have very few *customers*, and these are all regional. However, this is more likely to be a function of the mapping approach chosen and this is something that could be addressed in future research models. Over 10% of this mapped ecosystem fulfilled the *supplier* function, with a slight majority being nationally based. B005 did not identify any organisations as *competitors*, nor were there any *standards bodies* in their reported journey. The organisations fulfilling a *stakeholder* function largely included the grant-making trusts and foundations that were significant in Isenberg's *finance* domain below, Moore's definition of *stakeholders* including investors and owners as well as trade associations. The prevalence of *core contributors* in this mapping does line up with the narrative of the business journey that has been explored. The inclusion of *suppliers* and *distribution channels* allows a clearer understanding of the directional aspect, as opposed to Isenberg's *markets* domain, which covered both of these aspects. However, this was not the case when considering the significant proportion of Moore's *complementor* role, covering associated products and services that do not form part of the supply chain to the core business. For B005, this includes media entities and a range of cultural

organisations, but as with the *policy* domain discussed below, there is no means of establishing whether these complementary organisations have provided resources and support to B005 or whether this relationship has been reversed. This element of direction is something that is potentially important but cannot be determined from this mapping approach.

The entrepreneurial ecosystem chart below shows clearly that *human capital* - defined by Isenberg as covering workforce, education and training, is the most frequently occurring attribute in this map of B005's ecosystem, followed by *markets*, which Isenberg defines as customers, networks, and distribution channels. There is a higher proportion of national features to this ecosystem which suggests a strongly nationally connected entity at the centre.

FIGURE 7.20: B005 ECOSYSTEM MAP 2017 USING ISENBERG'S ENTREPRENEURIAL ECOSYSTEM

Isenberg %	International	National	Regional
Support	0%	1%	1%
Policy	0%	3%	3%
Markets	1%	17%	10%

Human capital	2%	27%	14%
Finance	1%	6%	2%
Culture	0%	10%	3%

The business journey described above does place an emphasis on creative content which is reflected in the strength of the human capital domain in the chart above. The organisation has also expanded from a touring company to include a focus on the development of writers and directors, which is also reflected in the balance of regional and national connections across the entrepreneurial ecosystem. The chart shows limited engagement with organisations that provide support, and indeed the business journey narrative has not indicated a wide range of such connections. However, Isenberg's definition of *support* also includes the infrastructure elements required to operate, so some element of the process of mapping may need to be amended in order to capture all of these. Although a small part of the overall mapping, there was an even split between regional and national sources of support. The business narrative revealed that there had been a significant reliance on grant funding, particularly from the Arts Council. Whilst the finance domain here is spread across regional, national and international scales, there is no way of differentiating here between grant funding or private sources of finance. Public funding is classified as *policy* within Isenberg's ecosystem, and this domain appears in the map above as below 10% of all connections, with a 50/50 split between regional and national scale. However, this split doesn't reveal whether particular sources of policy have been supportive or restrictive as there is no contextual or functional element to Isenberg's definitional approach. As a map created at a single point in time, it is not possible to determine any circumstantial shifts that have taken place in order for B005 to reach this position, and whether this is a stronger or weaker position than in previous years.

B005's cultural ecology, using Holden's approach, is dominated by *nomads* (the creators and consumers of content) as well as *connectors*, as shown below.

FIGURE 7.21: B005 ECOSYSTEM MAP 2017 USING HOLDEN'S CULTURAL ECOLOGY

Holden %	International	National	Regional
Connector	1%	17%	11%
Guardian	0%	4%	2%
Platform	1%	16%	8%

Nomad	2%	27%	12%

The business journey described above does have a clear focus on the creators of content as a critical part of the business model, which is reflected in the significant proportion of the *nomad* role. The cultural ecology mapping suggests that B005 has very little engagement with those fulfilling the *guardian* role, that is to say, those who look after cultural assets (both tangible and intangible). From the discussion of the business journey and ecosystem, this could well be the case, but there seems to be an implicit understanding within and across B005's working approach that all of their work contributes to the protection of culture in some sense. This brings a further perspective on Holden's cultural ecology roles and opens up a discussion about whether an organisation or a cultural activity really only fulfils one role at a time. The breakdown of roles in this mapping also suggests that B005 has more engagement with connecting organisations than with *platforms* (the venues for creative output), which may not sit accurately with the function of the organisation as a touring theatre company. However, the *connector* role for B005 covers a range of funders, policy support organisations, trade organisations and tools that are used for the management of the organisation. To better understand how each of these has contributed to the development of the organisation over time, the model would need to be further refined.

Reflections B005

The business journey above describes critical incidents in the organisation's model that were related to staff appointments and internal restructuring, which is not reflected in ecosystem models largely focused on external connections. The inability of these theoretical frameworks to tell the reader the specific direction of the relationships within them is also an area for potential further development.

The data collection approaches did not probe for specific detail on customers, which results in a mapping that features very few connections in this category. The narrative approach and the business longevity would suggest that this mapping has inaccuracies and this is something that could be addressed in future research approaches. As with other case studies, there were categories within each framework that

contained organisations fulfilling various functions for the case study organisation – for B005, Holden's *connector* role is a case in point. The ecosystem frameworks do not provide the deeper understanding of the purposes behind each connection or link, and this has proved significant when considered alongside the business journey narratives.

B006: Valuing our worth as makers

> *"It's really really interesting now that we've made lots of connections and through word of mouth we are starting to get more and more commissions and we've started to launch a product range, and we're really on an interesting trajectory now that is gathering a lot of momentum, and we're now at the stage of well, you know, when is the point that we begin to be able to commit full time to it. And erm, so that's… We're actually at a really interesting kind of turning point right now."*

B006 is a jewellery/maker company based in the Jewellery Quarter to the centre of the West Midlands. This sites the business within the crafts sector of the creative industries. A limited company since 2016, B006 is a formal incarnation of the artistic practice of its two owners, who have been artists for over twenty years.

The case study is based on an interview with the two company directors and employees, and on documents including Companies House accounts, artist CVs and profile pages through other employers.

FIGURE 7.22: B006 BUSINESS TIMELINE 2017 FROM DATA COLLECTED FOR THIS STUDY

Business journey B006

B005 is owned and operated by two makers, who both participated in the interview. They are the sole employees of the organisation, which was set up two years ago following twenty years of professional practice in the jewellery and art manufacturing fields. The interview opened with the planned prompts about discussing the timeline of the business. This led to further discussions of the career paths that had led to the setting up of the business, as well as the catalysts and turning points within the business itself. The business has its origins in jewellery, but "making" has become the core of the approach, as one interviewee explains:

> *"We both started as jewellers, but I have kind of worked in lots of industries so I can make in kind of any material now, so kind of wood, metal, plastics, ceramics, you name it … the thing is I think we both like making – that for us is the most important thing."*

Since the registration of the business, the owners have developed their business model from their original plan to work on commissions, to a model that brings together the two owners' previous teaching experience, exhibition and commissioning work, and future plans. This development has been a gradual process over the two years of running the business as a formal entity, and realising the value and potential of their teaching experiences and previous work.

> *"We've kind of … the last couple of years has been really understanding what it is exactly we want to do and where we want to go forward and how we're going to do that, so we feel like we've got three different strands now. We've kind of got our own practices, that's one strand. We've got working to commissions which is another strand, erm… and making our product range. And then we've also started teaching girls with power tools, kind of in small groups. So we started using our teaching skills in our own workshop, and that has been the most rewarding teaching I've ever done! Absolutely brilliant."*

Despite the harder conditions and lack of immediate financial success, the business owners expressed strong positive values about their creative work that were not experienced in their salaried positions as employees. There was a clear sense that the rewards from the creative micro-enterprise offered something more meaningful but that for the time being, their part-time employee status had to continue in order to make their creative practice affordable. Whilst highly motivated by the creative values within their work, the owners are not idealistic about their business environment, acknowledging that the conditions are, at times, difficult, and there is a lot of work required to juggle this business with other part-time work. However, they are focused positively on their desired business trajectory and this has helped to maintain business (and personal) momentum.

> *"Saying that though, it's really hard and it's real graft and there's a lot of things – you know we're here late and doing a lot of things behind the noisy roller shutter door, and we keep, you know, motivated and driven because it's ultimately where we want to be in the future. We don't know how long it's going to take, but everything is going in the right direction at the moment."*

The initial catalyst for setting up in these premises was the requirement for more physical space, having previously worked from home studios in spare rooms and garages. The practicalities of financing the hired space led to a realisation that there needed to be a shift toward income generation through the artistic practice. In the years leading up to the establishment of the business, the owners had spent a lot of time - and resources - making work for exhibitions. This had, as the timeline above indicates, been successful in achieving recognition and awards for the work, but as one of the interviewees explained, exhibiting is a time and cost intensive activity. Once the business was set up, exhibitions started to become an unaffordable luxury:

> *"So I'm having to question exhibiting, so this turning point that you're talking about, this is where the business thing comes in because we're now having to consider how you sell things more, and how you do that. And it's having to refresh that business knowledge."*

The business owners demonstrated a high level of reflective practice around both their creative and business work, which led them to identify the need to refresh their business knowledge and skills. Identifying appropriate business support and advice, however, has become quite a challenge for the organisation, in addition to the more general challenges of running a micro-enterprise in which, as the interviewees explain, all the operational tasks have to be carried out in-house as well as the artistic development activities. The time and resource required to identify business support and develop further skills is an additional detraction from the core artistic activities:

> *"I think, in terms of business, it is really challenging, erm… And I mean I have business awareness from teaching and professional practice and things that we do, and I went to a conference recently to just pick up some information and things. But even attending things like that are difficult because it's 2 days of making that you've lost."*

Identifying appropriate support presented a range of challenges for B006, who found that they had very detailed operational questions that were not addressed by business support programmes, both general and sector specific, so the owners spent further time researching the issues themselves and approaching fellow makers for advice. An additional difficulty faced by B006 was the membership nature of many support and trade organisations, which presented a financial barrier to advice that, as one of the interviewees pointed out, might not even answer the business' questions. B006 was aware of a range of general and sector-specific programmes of support, and indeed had previously benefited from support from this soon after graduation, around twenty years ago:

> *"I launched a business and the Princes Trust were there and they gave me loads of support and there was a business bank manager and somebody else and somebody else. As I was a newly emerging graduate business there was a lot of support. Come forward twenty years as a mid-career person trying to relaunch a business, you are expected to know everything and you don't."*

The business had experienced particular difficulties around protection of their intellectual property, international marketing and exhibiting, and the financial value of their work - both setting this internally and communicating this to clients:

> *"I think that's our biggest challenge at the minute is, as a business how you value your worth, and how other people value your worth as a maker, and what people are prepared to pay for your skills"*

The interviewees, having spent a lot of time and effort on their own research to address business issues, found it difficult to identify a shortlist of organisations and individuals that had helped them with business support across their own ecosystem. As part of this, the business owners had actively engaged with other maker organisations and consciously developed a network to which they contributed in the expectation that this would be reciprocated. These values came through most clearly when describing a recent weekend spent helping a colleague on an urgent project:

> *"We know that it's those connections that make things happen in the future and that's what's really important to … how we, how we survive and how we move on, really. So it wasn't for money actually, so this thing about money, it wasn't money, it was purely for being there, doing a good job, being there on time, working really professionally, getting the job done and with the kind of expectation that it will lead on to other business!"*

The business owners also reflected on how their acquisition of physical studio space had become a catalyst for further engagement and opportunities. The ability for people to visit the studio has led to a range of connections and conversations about the creative practice. The physical space has also become a catalyst for the business owners to change their business model, prompting them to consider using the physical asset of the studio in different ways to engage with their audiences, not just as a making space. Their reflections on the business location also extended beyond the studio boundaries:

> *"[Interviewee 1:] It's not until I've stepped out of those doors and become a member of the community that I'm actually much more aware of what's going*

on here […] There's a real difference between working in the jewellery quarter and being in the jewellery quarter.

[Interviewee 2:] And also within this, kind of, community that people value now you as a maker, or as a creative, as an independent creative working – there's a real… love of the fact that they can come and see you and that whole sort of thing."

Despite the current financial position - as an early stage business there is no profit, and turnover is growing gradually - the business owners remain positive to learning, developing and overcoming the difficulties that arise. Relationships with customers and colleagues are a key part of this for B006:

"We're very much investing in our future at the moment, that's how we look at it. We're investing in our relationships and our equipment, and with this kind of thing that hopefully, all being well, it will turn a corner, which it feels like it is beginning to do."

Ecosystem maps B006

The following sections map and describe the ecosystem of B006 at a specific moment in their business journey, using the three theoretical constructs of entrepreneurial ecosystem, business ecosystem and cultural ecology. This mapping is drawn from the interview data and the document analysis so provides a further reflection on this data, asking whether the ecosystem frameworks offer a useful perspective on the position of the case study organisation.

Looking firstly at the geographic scale of B006's ecosystem overall, the majority of connections are regional (41%), with few international connections. This fits broadly with the business journey explored above, which focused on the networks that were developing from the physical studio space in the Jewellery Quarter. The ecosystem charts

below explore in more detail the breakdown across these geographic scales using the three theoretical frameworks.

FIGURE 7.23: B006 ECOSYSTEM MAP 2017 USING MOORE'S BUSINESS ECOSYSTEM

Moore %	International	National	Regional
Supplier	0%	4%	11%
Stakeholder	0%	4%	4%

Government and regulatory	0%	0%	4%
Distribution channel	7%	15%	7%
Customers	0%	0%	0%
Core contributor	0%	0%	11%
Complementor	7%	11%	15%
Competitor	0%	0%	0%
Standards bodies	0%	0%	0%

The mapping of the business ecosystem using Moore's framework showed that the majority of connections discussed and documented by B006 fulfilled the *complementor* function, and that this was spread across regional, national and international scales. This better reflects the reciprocal driver behind the relationships that B006 discussed as part of their business journey. *Distribution channels* were the next most frequently referenced in this mapping, again across regional, national and international locations. As with the Isenberg domain of *markets*, this prompts some reflection when compared to the business journey above. B006 does not have a financial profile that reflects a large number of sales routes, and indeed, the prevalence of the *distribution channel* function relates to the focus on attendance at exhibitions as a marketing or research opportunity. However, without the narrative on the business journey, the ecosystem mapping approach alone does not reveal this. Moore's *supplier* function was the next most frequently occurring in this mapping, with no international presence and more regional connections at this point in time. These connections are made up of regionally based universities and education providers, which are also the employers of the two business owners. This nuance is not revealed by the mapping approach and this prompts a further question around whether the objective mapping approach taken here is the most effective method. As this example shows, by trying to use an objective approach, an education institution will always be tagged as a *supplier* to Moore's ecosystem regardless of the function that it provides to the case study business at the centre of the map.

The *core contributor* function was entirely made up of regional organisations or individuals, as was the *government and regulatory* function. The latter had a very small presence in B006's ecosystem, and the narrative around the business journey reflects

this. When examining those organisations tagged with the *core contributor* role in the context of the business journey, it becomes clear that most of these artists are those from whom B006 has sought advice and support, and not necessarily creative content. The ecosystem mapping approach itself would not reveal this as it tags the organisations themselves and not the type of relationship between the nodes of the network. This is likely to form an area for further development of the ecosystem approach. *Stakeholders*, here including trade bodies, made up a smaller proportion of B006's ecosystem and was split between regional and national organisations. The business journey did not make reference to the importance of *stakeholders*, so this function was identified through the mapping approach. There were no *customers*, *standards bodies* or *competitors* noted in the data that created this ecosystem map. As with other cases in this study, the lack of data on *customers* and *competitors* is a possible drawback of the mapping approaches used, which focused on the support environment and the business journey through that landscape.

FIGURE 7.24: B006 ECOSYSTEM MAP 2017 USING ISENBERG'S ENTREPRENEURIAL ECOSYSTEM

Isenberg %	International	National	Regional
Support	4%	15%	11%
Policy	0%	0%	4%
Markets	11%	4%	4%

Human capital	0%	0%	22%
Finance	0%	0%	4%
Culture	0%	15%	7%

In this mapping of B006's ecosystem, there are three domains made up exclusively of regional connections - *human capital*, *policy* and *finance*, with regional connections featuring across all other domains. This suggests that all of the workforce or educational connections discussed by B006, at the point of mapping, are regionally based. The *policy* and *finance* domains are each populated in this mapping by a single organisation, suggesting that B006 has not, at this point, engaged with a significant number of organisations for either regulatory incentives or private finance, which tallies with the discussion of the business journey and the document analysis for the organisation. The most frequently referenced domain using this mapping approach was that of *support*, defined by Isenberg as the infrastructure and allied professions as well as non-governmental institutions. Within this domain, the majority of B006's connections were national, although regional support organisations were also prominent. B006 also referred to international support in the form of Klimt02, a membership database for the jewellery profession. The second most referenced domains were those of *human capital*, made up of regional connections as noted above, and *culture*. There were no international organisations featured in the *culture* domain, and almost double the number of national to regional organisations, suggesting that B006 currently draws on a more domestic range of visible successes in developing their approach. The final domain in Isenberg's ecosystem is that of *markets*, which for B006 was dominated by international connections, with little national or regional profile. This is somewhat in conflict to the extended discussion with B006 around building their regional profile and developing new business models arising from this. However, this conflict may be useful in understanding where future activity needs to focus in order to make the revised sales approaches successful.

Overall, the Isenberg mapping does align with the business journey explored above, with one area of exception in the *markets* domain. This exception offers a useful way in to discussing the potential future directions for the business journey as opposed to mapping the status quo for the organisation. At several points the business journey above reflected some of the challenges of business support that B006 are currently

navigating, and the ecosystem mapping here does not reflect these nuances. The business journey discussed above also had a strong focus on reciprocity and the non-financial value drivers of the approach and this significant aspect is not reflected in the Isenberg mapping approach, which does not take into account the nature of any relationships or transaction between organisations in each domain.

FIGURE 7.25: B006 ECOSYSTEM MAP 2017 USING HOLDEN'S CULTURAL ECOLOGY

Holden %	Regional	National	International
Connector	4%	11%	26%
Guardian	0%	0%	0%
Platform	11%	19%	15%
Nomad	0%	0%	11%

Using Holden's approach, B006 appears to have no connections with organisations fulfilling the *guardian* role in Holden's cultural ecology. When considered in the context of the business journey outlined above, this mapping does not present a dramatically different picture, but does raise the question of whether a healthy cultural ecology can function with a zero count against one of the constituent roles; and consequently what this might mean for the micro-enterprise at the heart of this map. The most frequently tagged role within the ecology model was that of *platform*, which was relatively evenly spread across regional, national and international scales. The prominence of this role, described by Holden as having a showcasing function, does fit with the approach described as part of the business journey above. However, the *connector* role is also a close fit for the activities and approach of B006, and this is reflected in the high proportion of this role, particularly regionally, which made up a quarter of the overall ecology map. The connections to creators of content, classed by Holden as *nomads*, were relatively low in proportion to the other cultural ecology roles, but all of these were regionally based.

The cultural ecology perspective does align with some elements of the B006's business journey explored above, but as with other ecosystem frameworks, needs to be considered alongside the insights from this journey in order to provide any deeper understanding of the micro-enterprise. Another key element to B006's business journey has been their development of the business model based on different elements of their previous experience. This is critical to the future success of the business, but none of the ecosystem frameworks reflect the contributions or past experiences of the business at the core of the case study.

Reflections B006

Overall, the ecosystem mappings suggest that B006 engages frequently with organisations and individuals that provide a link to others and establish a position within a network. The business support difficulties experienced by B006 were not clearly reflected in any of the ecosystem frameworks, and nor were the skills and experiences that B006 had developed over their careers that had led to their current business approach.

The shortcomings of the ecosystem categories in relation to the 'real' purpose of connections were seen here as with other case studies – in B006's case this was seen clearly in the links within Moore's *core contributor* category, which the business journey revealed were largely for support and advice, and not for the purposes of content creation. The ecosystem mapping approach itself tags the organisations themselves and not the type of relationship between the nodes in the network, despite the importance placed on relationships in the literature. B006's business journey also described several instances where the relationships developed were focused on reciprocal gain rather than financial reward, and this aspect is not captured in the mapping approaches.

The interviews also revealed that the business journey for B006 had been shaped significantly by experiences of the owners that pre-dated the business itself. It is recognised in other cases that the ecosystem mapping approach is static in time, and does not adequately reflect the development of connections, and this insight from B006 also reveals that the business journey in some cases can start before the business.

What does the ecosystem approach reveal about micro-enterprises?

The section sums up the key insights from the micro-enterprise case studies above, noting aspects that emerge from more than one case study and those that are revealed when looking across the case studies together. The case studies reveal that:

- Micro-enterprises have power and agency to shape the(ir) ecosystem.
- Micro-enterprises see formal and informal connections as equally important.
- Micro-enterprise connections are driven by a range of factors.
- Micro-enterprises develop connections in the ecosystem over time.

Each of these areas are considered in turn with reference to the case studies in the chapter.

Micro-enterprises have power and agency to shape the(ir) ecosystem

Case study micro-enterprises have created and shaped their ecosystems as seen in several instances, whether this is seeking additional connections in a particular area (functional or geographic), or re-engineering the relationship with organisations in their network to fulfil different functions. This supports the research position that the ecosystem is constructed by those within it. It also suggests that the micro-enterprises within the system are affected by the level and scale of connections that they are able to access, which in turn implies the existence of a broader ecosystem within which creative enterprises construct their journey.

Micro-enterprises see formal and informal connections as equally important

Micro-enterprise journeys discussed both formal and informal sources of connections, an aspect which is not captured in the mapping or categorisation approaches, and which could be relevant in terms of targeting support interventions. Several case studies mentioned the importance of family support, whether for moral support or finance. Networking events and links were also important for several of the micro-enterprises case studies. None of the family members, and few of the networking groups referenced, provided sector-specific expertise and professional advice. In better

supporting micro-enterprises, perhaps a useful place to focus would be the establishment of support networks, rather than seeking to answer the specific development questions that emerge (which are, if these cases are any indication, varied and often very bespoke).

Micro-enterprise connections are driven by a range of factors

In several of the cases, there were relationships between the micro-enterprise and regional organisations that had no direct link to the operational model of the case study organisation. This included the case of B006 who openly engaged in unpaid work with a 'competitor' organisation in order to build profile and with the understanding that this favour would be returned at some point. In addition, geographic connections were less important in some cases than shared values, as seen in case B003. The ecosystem models are currently unable to fully reflect the untraded interconnections and interdependencies here, nor the wider social, cultural or economic value aspects.

Micro-enterprises develop connections in the ecosystem over time

All of the case study organisations show have connections across the range ecosystem categories, but in those micro-enterprises that have been running for longer there are distinct strengths of connection in certain categories. This may impact on our understanding of new micro-enterprises and the support that they might need to grow, as well as contributing to established businesses. There has been little work to date on ecosystems and business lifecycles, which could form a focus for future research.

What does the micro-enterprise view reveal about ecosystems?

One of the most striking points is that there is very little duplication between the specific organisations in the top-down data-driven mapping from secondary data and the micro-enterprise ecosystems when reviewing the three theoretical constructs. The balance of the categories is also different and the scale of the top-down versus micro-enterprise ecosystems is set out in the figures below, with a brief note on the key differences and how they could be viewed in light of the journeys explored above.

FIGURE 7.26: MOORE'S FUNCTIONS ACROSS ALL MICRO-ENTERPRISES COMPARED TO SECONDARY DATA-DRIVEN ECOSYSTEM MAP (DEVELOPED FOR THIS STUDY)

The comparison of the two datasets above shows a marked increase in the percentage of core contributors in the combined micro-enterprise ecosystem. This is the most significant difference, but it is also noteworthy that there is a lower proportion of suppliers and government and regulatory roles across the micro-enterprise ecosystems. Across the case study journeys, micro-enterprises discussed relationships most closely connected to their core activities. That this did not capture the same proportion of government and regulatory connections as seem to exist in the secondary data-driven ecosystem suggests that some of the government activity may not be reaching micro-enterprises.

FIGURE 7.27: ISENBERG'S DOMAINS ACROSS ALL MICRO-ENTERPRISES COMPARED TO SECONDARY DATA-DRIVEN ECOSYSTEM MAP (DEVELOPED FOR THIS STUDY)

Comparing the two datasets for Isenberg's entrepreneurial ecosystem domains shows that there are more connections in the *human capital* domain for micro-enterprises, but fewer in the *markets* domain. The most significant differences are in the domains of *support* and *policy*, which were both dramatically lower as reported by micro-enterprises. This could support the reflection from the business ecosystem of Moore, above, that some of the support and policy initiatives across the sector are not reaching the micro-enterprises in the creative industries.

FIGURE 7.28: HOLDEN'S ROLES ACROSS ALL MICRO-ENTERPRISES COMPARED TO SECONDARY DATA-DRIVEN ECOSYSTEM MAP (DEVELOPED FOR THIS STUDY)

In Holden's cultural ecology, micro-enterprises reported many more connections across nearly all roles, with the most significant difference seen in the role of *nomad*. Micro-enterprises reported a slightly lower percentage of connections with those fulfilling the role of *guardian*. As shown in chapter 4 above, the majority of the top-down approach to the cultural ecology was categorised as '*not applicable'* as it did not fulfil a specific creative industries role. Therefore the secondary data-driven element of the comparison above is based on less than 50% of the data collected, and is compared to 100% of the micro-enterprise data.

Across these views of the micro-enterprise dataset, there was an increase in the counts for both Moore's *core contributor* and Holden's *nomad* elements, reflecting the creators and consumers of content. The narrative aspect of the case studies shows that

all of the micro-enterprises in the study have developed relatively direct relationships with their target audiences / customers. It is also important to note that case studies did not talk about customers or audiences in specific detail which made these groups difficult to plot onto ecosystem maps. When comparing the secondary data-driven and the micro-enterprise mapping, there was also a significant increase in Moore's *complementor* function and Holden's *connector* role, which is reflected in the micro-enterprise narratives around collaboration and local and regional ecologies and networks.

The narrative investigations reveal that, in many cases, micro-enterprises established links with one organisation as a direct result of another connection. This sequential nature of connections across the ecosystem is not captured in the frameworks and could have implications for the targeting of support interventions as well as for future research into the ecosystem concept. Linked to this is the concept of directionality in ecosystem relationships – for example, where there is a link between a micro-enterprise and another organisation that only the micro-enterprise is aware of, this would represent a connection that travelled in one direction. Likewise, there may be a link that is of more significance to one party than the other, as in the case of large funders contributing to micro-enterprises. This was also reflected in case study recognition of positive or beneficial connections and negative or challenging connections. These aspects are not captured in the models here and suggest that a networks approach or the further context of untraded connections and interdependencies could be considered for further exploration.

The issues around sub-sector boundaries featured in more than one case study, with ecosystem maps showing a breadth of connections outside of the sub-sector of the case study business. One of the case studies recognised that their activities were seen to fall within the creative industries but did not consider their work creative in the same sense (B001). Others (B002, B004) were open about the range of connections they were aware of outside of their particular sub-sector and outside of the creative industries in general. This corroborates the findings of the earlier ecosystem mapping in chapter five which suggested that the creative ecosystem drew on a wider range of sources than industry definitions might allow.

On the creative ecosystem: chapter 7

The case study approach revealed that within the ecosystem mappings, there were connections based on both tacit and explicit knowledge. This led to the consideration that there may be an ‘operational’ ecosystem and a wider ‘influencing’ one. This aligns with the finding in chapter four that, with particular reference to Moore’s business ecosystem, the distinction between the core and the extended enterprise was diminished by the mapping approach used here. However the core and wider ecosystem discussed here extends beyond the supply chain approach covered by Moore.

Overall, as with other findings chapters, there is a sense that the ecosystem looks different and has a different set of purposes depending on where you start. The marked differences between the case study ecosystems and the top-down approach suggest that there are implications for understanding and better supporting micro-enterprises.

8) Complex, variable and incomplete: what the ecosystem is and what it offers.

This final chapter reiterates the research question and context, before outlining the key findings from the study against the initial objectives. These findings are then positioned alongside parallel developments in ecosystem approaches as well as wider literature. The chapter concludes by suggesting how these results contribute to scholarly knowledge, policy and practice.

The study emerged from a consideration of the under-representation of micro-enterprises within the creative sector, despite their dominance as an organisational form. Further to this, the policy and support approaches targeting the economically successful creative industries were focused on growth, which largely excluded the micro-enterprises within the sector. The particular focus on 'industry sector' as a test of the ecosystem approach was consolidated by the debates around arts ecology models (from public subsidy) to creative economy approaches (sustainable income streams) (Fleming and Erskine 2011). The publication of the 'Warwick Commission' report made significant reference to the 'creative ecosystem' as a key focus for future support to the sector and encouragement of the idea of cultural value and broader arts and creative education (Neelands et al. 2015). This study's interest in the business and enterprise aspects of the term stemmed from further investigation of the arts ecology and creative economy debate, and the perceived clashes between the two in terms of business approaches. Whilst Neelands et al (2015a) suggested that a creative ecosystem should cover strategic investment, production and consumption of cultural and creative content, creative and cultural education, the digital sphere, and collaborative community engagement and understanding, it did not define the components of the creative ecosystem, which led to the use of literatures on ecosystem in a business and industry context which have been developing in parallel. Thus the literature review explored the theoretical constructs of business ecosystems and their applicability to the cultural and creative sector in order to refine and address the research question:

Is the theoretical construct of 'ecosystem' useful for understanding creative industry micro-enterprises in order to better support them through policy and other interventions?

This built a theoretical framework for the empirical phase of the study that considered business and entrepreneurial ecosystem approaches. In addition, the development of a range of ecological metaphors around the creative industries was reviewed in order to identify whether and how 'ecosystem' could offer anything above and beyond existing approaches to grouping and organising the sector. The ecosystem approach in business offered two key frameworks that could be applied to create an ecosystem map using creative sector data. From the creative industries perspective, the discussion of ecological terms offered the potential to recognise wider approaches to value than existing terms such as 'cluster' and 'creative hub' which retained the economic value perspective of prevailing policy discourse. There was no documented 'creative ecosystem' framework available to apply alongside the selected business and entrepreneurial ecosystem approaches, although there was a thread of academic debate developing the concept as a metaphor. The framework of cultural ecology was selected as a creative, or cultural, sector comparator. The selected approaches to 'ecosystem' and 'ecology' were tested by using them to "map" the creative industry sector. This mapping took a multiple strategy approach and was structured through three perspectives:

- A 'top-down' data-driven ecosystem,
- Stakeholder perspectives developed through semi-structured interviews
- "Lived" experiences of micro-enterprises and their ecosystems developed as case studies.

Having set out the methodological approach to developing and conducting the study, the findings from each stage of research have been set out and discussed in the preceding chapters. The research tested the applicability and usefulness of 'ecosystem' approaches to the landscape of creative business in the UK, and specifically the micro-enterprises within it. To support this aim, the study set out the following objectives:

1. To test the applicability and usefulness of 'ecosystem' approaches to the landscape of creative business in the UK;

2. To assess the extent to which creative micro-enterprises are better understood through an ecosystem lens; and
3. To identify the implications for creative industries policy and support arising from the ecosystem perspective.

The following section considers the findings of the study in relation to the three objectives set out above.

a) The usefulness of 'ecosystem' approaches

Discussion of this objective is split into two parts to address the applicability and usefulness of 'ecosystem' approaches to the landscape of creative business in the UK. The first element covers the usefulness of ecosystem approaches as applied to a set of 'live' data, in order to explore how well the theoretical approaches work in and of themselves, including the consideration of whether the approaches are aligned sufficiently as to create a meta-framework that is applicable to the creative industries. Subsequently the applicability and usefulness of ecosystem approaches is explored in relation to the creative business environment itself, and the extent to which the ecosystem approach offers additional understanding and insights into the creative sector.

The ecosystem concept

There were a number of problematic areas identified through the application of the ecosystem frameworks, which included:

- Theorists refer to *interactions* but models did not offer a means of recognising this.
- The need for sector or *contextual knowledge* in order to categorise ecosystem component parts.
- Ecosystem components were *loosely defined* making practical application difficult.
- The *limitations of definitional agreement* across theoretical approaches.

Interactions

The study makes a practical contribution to demonstrating this point through the findings discussed in chapter seven in relation to micro-enterprise ecosystems, which found that there were a range of motivations, both positive and negative, behind the connections in each organisation's ecosystem. The models were unable to express the values of, and behind, these connections, so as well as presenting an ecosystem map that is static in time, the case studies also present 'flat' maps of interactions that treat all relationships and connections equally. The stakeholder discussions in chapter six also make an important point about the 'relativity' of the ecosystem approach, noting that any understanding of creative ecosystem is framed by the starting point. The study contributes to the ongoing and developing discussions around the emerging ecosystem construct, and in its critique of the lack of 'system' has the closest parallels with Spigel & Harrison's (2017) process theory approach:

> *"Rather than seeing ecosystems as tangible "things," they can be better understood as ongoing processes through which entrepreneurs acquire resources, knowledge, and support, increasing their competitive advantage and ability to scale up."*
>
> (Spigel and Harrison 2017: 158)

Ultimately, none of the frameworks offer an insight into any interactions between the component parts – arguably there is no *system* in the ecosystem concept, despite each theorist having referenced this in their descriptions. The nuances of the connections within many of the categories above are not captured, which suggests possible areas for refining the model by adding sub-categories or additional network analysis approaches, so that we can better understand the profile and purpose of connections.

Loose definitions of ecosystem components and the requirement for contextual knowledge

When applying the ecosystem component definitions as attributes to a set of data, it became clear that the definitions were broad and this presented difficulties in selecting

the most appropriate attribute. This was discussed in chapter three from a methodological perspective and was experienced in developing the findings in chapters four and seven. To counter this difficulty contextual knowledge proved useful despite the sector neutrality of the theories themselves. Chapter four demonstrated that when applying the ecosystem models to a set of data in order to categorise organisations (and other features), a level of sector knowledge was required in order to allocate the relevant ecosystem attributes. Chapter five further set out how sector knowledge and comparators were deployed beyond the categorisation of attributes, in order to expand the understanding of the very broad definitional approaches used in each of the theoretical approaches. Application of the ecosystem models therefore required some understanding of the context in which they are embedded (here based on 'industry') in order to effectively categorise the ecosystem features into the three frameworks. This runs contrary to some of the current approaches to ecosystem which are seen to transcend sector boundaries, because entrepreneurial knowledge is seen to be more important than knowledge of sector or industry (Isenberg 2011, Spigel and Harrison 2017). Brown and Mason (2017) warn of possible 'crowding out' in single sector ecosystems, wherein resources are drawn to a single area of focus to "the exclusion of other innovative sectors and entrepreneurial activities" (Brown and Mason 2017: 23). As shown above, the cultural and creative industries sector is broad and is made up of a number of related sub-sectors, which could mitigate against this crowding out principle. This was borne out through the stakeholder (chapter six) and micro-enterprise (chapter seven) perspectives which drew from sector and non-sector sources of support, suggesting that there may be merit in the 'cultural exceptionalism' argument as applied to the creative ecosystem: that is to say, a creative ecosystem approach is different to other models.

Lack of definitional agreement and the subjectivity of 'ecosystem'.

Whilst the study did not hypothesise that the three ecosystem approaches would combine together into a single meta-framework, there was an underlying consideration that ecosystem approaches would be focused on similar attributes and therefore that there would be agreement between the definitions of some, if not all, component aspects. As shown in chapter four, the application of the ecosystem approaches to a shared set of

data revealed that there were only two areas where the business and entrepreneurial ecosystem definitions were strongly aligned, which included the government and regulatory roles, and the areas of human capital and suppliers to the overall ecosystem. There was very little definitional agreement between the business and entrepreneurial approaches and that of the cultural ecology.

In some areas there were difficulties in applying particular ecosystem constructs because the theoretical approach took an alternative starting point to the creative ecosystem investigation. This was seen most clearly in chapter four in the example of applying Moore's customer categorisation – Moore's model started from the perspective of a single institution, whereas the creative ecosystem was a more 'top-down' approach and this meant that either all, or none, of the connections in the mapping could be considered as customers. The stakeholder perspective in chapter six not only underlined this 'relativity' of ecosystem mapping, as noted above, but also produced an alternative set of categories on the creative ecosystem. Whilst these largely overlapped with the components in the three models used in the study, stakeholder perspectives also incorporated a level of nuance that was specific to the sector – one example being the dual nature of 'infrastructure' that included both business aspects and the development of creative practice. This moves toward the particular discussions of what the ecosystem approach reveals about the landscape of creative business.

The landscape of creative business

The creative industries were selected as a site for investigation due to their policy desirability and the ways in which this policy focus is seen to miss important detail about sector micro-enterprises and their driving values. At a theoretical level the ecosystem models have not been applied to any sector, although the metaphor of ecosystem has emerged as part of the ongoing debates around how to reflect the diversity of the creative industries in particular. These debates use 'ecosystem' as a metaphor to introduce areas where 'strengthening' is required, as set out in chapter two. There have been a range of terms used to group the production characteristics of the sector, but the ecosystem concept seems to take a broader view than this. As shown in the literature reviewed in chapter two, an ecosystem approach takes account of broader issues of value, considers

aspects of participation as cultural consumption, and recognises non-financial participation in the creative system overall.

Cultural consumers, audiences and individual creators are not well represented in in any of the secondary data mappings, supporting the observation that they have historically been under-represented in policy perspectives on the sector. This is shown in chapter four and was also highlighted by stakeholders in chapter six. The only specifically creative approach used here was that of the cultural ecology, which took the definitional approach of combining production and consumption of creative content into one aspect (nomad). This did not align easily with the business and entrepreneurial approaches to ecosystem which considered markets, customers and core contributors as separate elements. As with the difficulties in representing government and regulatory aspects within the cultural ecology, there were clear difficulties in representing the commercial or market-facing aspects of culture in this model.

The relative lack of private finance connections in the ecosystem mappings of chapter four suggested limited financialisation of the sector, as did the case study mappings in chapter seven. There was a definitional issue highlighted in chapter four with relation to Isenberg's 'finance' and 'policy' categories which split private and public funding between the two, respectively. This made it difficult to determine the extent to which the ecosystem maps in chapters four and seven were reflecting policy initiatives or funding support within Isenberg's 'policy' category. Overall, the economic significance and focus on growth of the creative industries was not necessarily matched by the shape and direction of the sector as shown in chapter five, which presented an alternative statistical picture of the sector, and in chapter seven, which showed that creative micro-enterprises had very few finance or commercial market connections, instead strengthening their organisational approach with collaborative or community connections.

In the ecosystem mappings undertaken in this study, place became important as a comparator between elements of the ecosystem. There were marked geographical differences between the ecosystem elements that provided infrastructure (where there were more international features) and those that mediated access to culture and creative

outputs (where there were more regional features). Chapter five uses the physical location and target location data of the mapped secondary data to show how the large proportion of international and London-based organisations in this ecosystem represent nodes through which resources are likely to flow, rather than being static points in a system that demonstrate a London-centric bias. This may begin to support a better understanding of the creative industries as ecosystem, but further work is required to understand the flow of relationships and resources.

The findings in this study suggest that an ecosystem approach to the cultural and creative sector does not restrict itself to the boundaries of current approaches to industry definition. This was shown through secondary data in chapter four and consolidated through comparison to current sector statistics in chapter five. This breadth of approach was also seen in micro-enterprise searches for support and advice on their business journeys, which were not restricted to organisations or other sources of advice within their sector. This strongly reaffirms Moore's point that "a business ecosystem does not respect traditional industry boundaries" (1996: 28), with all three ecosystem approaches broadening the horizons of current understandings of 'industry'. This may have wider implications for understanding what have to date been called industry sectors, and could also suggest that an ecosystem approach is useful in seeking to better understand the web of connections between business and policy. However, in taking an ecosystem mapping approach such as the one in this study, there also needs to be knowledge of the sector context in order to categorise connections appropriately. There is thus a potential conflict between having less need for sector boundaries and more need for sector knowledge. Brown and Mason also note that "while vibrant networks enable the valorisation of knowledge and ideas throughout an ecosystem, they are often highly context specific and heavily embedded in a complex set of social and cultural relations" (2017: 20) which underlines the finding that contextual sector knowledge was both relevant and important in using these ecosystem models in a practical application.

> *"Typically speaking, […] more rounded ecosystems are predicated on a variety of different clusters, and industries, with many heavily skewed towards high-tech."*

(Brown and Mason 2017: 24)

Each of the different perspectives developed in the study build toward the idea that the 'ecosystem', in all approaches, is dynamic and shifting, and is likely to require constant maintenance in order to 'perform', or to have a useful purpose. This dynamic understanding is likely to be required whatever the starting position in the sector. For this sector in particular, it seems that the ecosystem construct reveals different facets depending on the stakeholder position and perspective. This may have parallels in other industry sectors but this study is one of the first to apply the construct to a specific sector rather than to the innovation or entrepreneurship environments.

Dovey et al (2016) use "the idea of ecosystem to emphasise the idea [of] a complex living network sustained by many different kinds of value exchange" (2016: 88). They have explored the concept through an investigation of a 'cultural ecology' centred around knowledge exchange hubs for the creative economy. In their case, they also identify a key role for HEIs linked back to the impact (and commercialisation) agenda. This was found here also but the point is much broader, and this is discussed further below with relation to the implications of the study.

Taken together these two approaches to the objective around 'usefulness' show that the ecosystem as an epistemological device does offer a useful construct for broadening the scope of discussion and thought around the creative industries. It takes into account a wider range of driving factors and forces than some of the growth-oriented models that have been critiqued to date. However it does not fully reflect the nature and values of relationships and connections within the system, particularly as experienced by micro-enterprises. The second objective of the study asked to what extent cultural and creative micro-enterprises are better understood through the use of ecosystem approaches.

b) Better understandings of creative micro-enterprises

As established in the introduction to this thesis, the creative industries are characterised by a number of understandings or conceptualisations, one of which is the

prevalence of micro-enterprises in the sector and their limited representation in national statistics and policymaking. This leads to difficulties in both understanding and supporting the sector on the part of policymakers (Bakhshi et al. 2013b, Dovey et al. 2016). One of the most significant aspects of the mapping process undertaken was how the mapping of secondary data in chapter 4 showed that micro-enterprises and creators of content remain hidden from mapping approaches. This served to reinforce the discussions of the literature review showing clearly that these are already under-represented in data.

Whilst enabling growth and scaling up is a clear policy goal, this did not necessarily match the aspirations of the micro-enterprises in this study, even those run by experienced entrepreneurs. This is further supported by investigations of local cultural and creative networks, such as that undertaken by Dovey et al. (2016) who note that "the presumption of high growth as an unquestioned good is itself frequently problematic for creative micro-businesses which might frequently be more committed to having a sustainable creative practice rather than growing a business" (Dovey et al. 2016: 89). In turn, this aligns with the characterisation of the sector as experiencing a dissonance between creative and commercial values as reviewed in chapter two. The micro-enterprises in this study were not motivated by increased turnover or staff numbers in line with the existing policy support model for productivity. This highlights that whilst creative industries have become significant to the economy, this is not necessarily a reciprocal relationship, which has implications for policy and support understandings.

The idea that "more was more" was clear across the cases and speaks to the diversity of voice both presented and received by micro-enterprises. In contrast to policy 'growth' approaches, 'more', for these micro-enterprise sites, meant additional activity in the same space. The sites interviewed saw that there was ample opportunity for there to be more freelance or micro-scale work occupying the same sub-sector and regional space, and that this would be productive rather than competitive. Linked to this, there was a sense across some of the case study sites that collaboration was more relevant and important than competition, which supports Bilton's (2017) point that competition takes place in networks of collaborating organisations. This collaborative approach was specifically seen in the case study sites who worked in theatre and performing arts, but

the ethos of supporting more channels (or businesses) for creative output was supported across all of the case studies, and was also reflected in stakeholder perspectives as shown in chapter six.

Overall, the ecosystem offers the possibility of understanding the richness and variety of creative micro-enterprises through their network of connections. However, as highlighted in relation to the limitations of the ecosystem approach above, there is further work to do if the ecosystem approach is to fully reflect the important relational and value-driven aspects of the micro-enterprise ecosystem, particularly in the creative sector. In addition, the inclusion of the business journey aspect to the case study approach was vital in illuminating many of the important nuances related to ecosystem connections. Methodologically this shows a need to further refine the ecosystem approach.

c) Positioning the findings of this study

Working toward the third objective of the study, which sought to identify the implications for creative industries policy and support, this section positions the findings of the study in relation to ongoing discussions around ecosystem, particularly in the entrepreneurial orbit. The policy landscape for small and micro-enterprise support, particularly in the creative industries, is also updated to reflect developments since the study began.

The ongoing ecosystem discussion

The ecosystem construct began in business and enterprise theory in the late 1990s (Moore 1996) and was more formally conceptualised by Isenberg (2011) in relation to regional innovation systems. Ongoing discussions largely continue this focus on regionally or innovation focused approaches, and the entrepreneurial approach has gained the most traction in academic and policy discourse (Acs et al. 2017, Alvedalen and Boschma 2017). More recently, research has sought to map and quantify ecosystems at various scales, developing a range of investigations of ecosystem metrics and exploring social networks in start-up ecosystems (Acs et al. 2017, Viki et al. 2017). Alongside the mapping and measurement approaches set out above, there is additional

contemporary research exploring the definitional antecedents to the ecosystem, (Acs et al. 2017, Alvedalen and Boschma 2017, Brown and Mason 2017, Spigel and Harrison 2017) and more structural reviews of ecosystem approaches focused on their purpose (Adner 2017, Jacobides et al. 2018). Discussions of definitions also explore the backdrop to the entrepreneurial ecosystem provided by clusters, agglomerations, hubs and industrial districts. In policy contexts, ecosystem has also spread as a buzzword, not least in relation to the higher education and innovation environments[5]. As Jacobides et al. (2018) point out, "ecosystems do not fit into the classical firm-supplier relationship, Porter's (1980) value system, or a firm's strategic networks; neither are they integrated hierarchies" (Jacobides et al. 2018: 4). Ecosystem as a concept is an exciting and emerging area of discussion precisely because of this variety in debate.

Brown and Mason (2017) describe the contemporary focus on ecosystems as a 'fad', after Martin (2015) but offer an extensive discussion of the background to the development of the term and its uses. In focusing on entrepreneurial ecosystems (EE) specifically, their paper proposes a taxonomy bringing together aspects that support and co-ordinate ecosystem development; namely actors, resource providers, connectors and culture (Brown and Mason 2017). This has some parallels with Adner's (2017) identification of two approaches to ecosystem, centred on either affiliation or structure. Ecosystem-as-affiliation begins with actors in the system, considers the links between them, and ends with possible value propositions. By contrast, ecosystem-as-structure starts with the actual or desired value proposition and considers the required activities before deciding where and how actors need to be aligned (Adner 2017). These structural approaches differ again from Jacobides et al.'s (2018) view that there are three 'streams' of ecosystem debate, variously centred on business (where the focus is the firm within their environment), innovation (focused on the value proposition and the actors required to achieve it) and a platform approach (which considers the actors that exist and the platforms that they create) (Jacobides et al. 2018).

The stakeholder and micro-enterprise elements of this study noted the evolutionary aspect of the ecosystems and business journeys discussed, which is echoed by Brown

[5] e.g. the UK Innovation Ecosystem: https://wellcome.ac.uk

and Mason's (2017) exploration of entrepreneurial ecosystem approaches. They note that "initial conceptualisations of EEs appear to be somewhat under-socialised, lacking a time dimension and fail[ing] to incorporate the full complexities of the socio-spatial context mediating entrepreneurship" (2017: 15). The mapping of the creative ecosystem in this study, particularly that emerging from stakeholder perspectives, recognises aspects of the system that develop over time, such as education and skills. In so doing, this ecosystem approach may also work toward a more sustainable approach rather than being focused on shorter-term economic metrics.

Literature has also begun to consider how ecosystems can best be supported by policy, with Brown and Mason (2017) pointing to the heterogenous nature of entrepreneurial ecosystems as "a highly variegated, multi-actor and multi-scalar phenomenon, requiring bespoke policy interventions" (2017: 11). This aligns with the messages emerging from chapter one around policy initiatives and the need for regionally and locally targeted interventions. This line of development is further supported by the findings of chapter five of this study which began to show the richness and flows of the creative ecosystem through the differences between the physical location and target location of ecosystem features. The findings of this study also support the theme in the developing literature that policy interventions and support need to be holistic rather than targeted, including a recognition that support needs to "attend to the whole network rather than just the strongest nodes within it" (Dovey et al. 2016: 90). However there is clearly a contrast between these two approaches. The ecosystem models selected for this study could be used at a high level of abstraction to help policymakers identify the focus of their intended support or activity, and help them to align their work alongside, or in collaboration with, the work of others. This avoids the need for one strategy or initiative to be fully holistic in its approach but does work toward a more holistic approach to policy support overall.

Creative industries policy

The study was contextualised within a cultural and creative sector policy history encompassing the economic growth focus above as well as a range of regional regeneration strategies (Evans 2009, Thomas et al. 2010). Many if not all of these policy

approaches focus on generating innovation, regional growth or entrepreneurship. The focus of the *creative* ecosystem as covered in this study is not necessarily directed at these areas of value generation. Dovey et al. (2016) note this history and state that "where creativity is understood as a key asset for regional development, cultural agencies are constructed as the first port of call in its delivery strategy" (2016: 100). This approach seems to have shifted slightly with sector businesses being consulted on priorities for support and development (Bazalgette 2017) and this has found its way through to policy planning - albeit couched in the familiar approaches of clusters modelled on the City Deal (HM Government 2018).

Bazalgette (2017) recommends that "a place-based focus on the cultural and creative sectors should be a key element in the government's overall approach" (2017: 16). The regional aspect has been taken up by the Industrial Strategy Sector Deal to which Bazalgette (2017) reported, which notes that "place matters particularly to creative businesses because the industry is characterised by a large proportion of SMEs and micro-businesses." (HM Government 2018: 22). One of the main findings of this map was the prevalence of London based, nationally focused organisations and support programmes, which affected consideration of the case study and stakeholder sampling approaches. When this was taken forward into the comparative approach of chapter five, there were important differences between the physical location of ecosystem organisations and the locations that were the target of their support or provision. This suggests that a focus on a single place, as seen in creative city and creative hub approaches, is less relevant than an approach that considers the flow of relationships and resources within and to an area. This also responds to criticisms of the 'templating' approach (Drake 2003, Evans 2009, Harvey et al. 2012). Having positioned the findings of the study in relation to existing creative industries policy, it becomes clear that an ecosystem approach could respond to the need for a holistic approach as suggested by Dovey et al. (2016) above. However, as Brown and Mason (2017) also note, "given their pervasive heterogeneity, there is unlikely to be a 'one-size-fits-all' policy prognosis for developing different types of ecosystems" (2017: 26). There are nonetheless some areas relevant to policy and support to which this study contributes.

Despite the acknowledgement of micro-enterprises and their significance within the sector (HM Government 2018) there is a clear growth focus to this strategy which may not be shared by the micro-enterprises of the sector. In addition, the strategy's approach seems to make ambitious assumptions about these micro-enterprises having the capacity to become involved in shaping the sector deal that has been promised them. These assumptions about policy engagement are made despite policymakers recognising that small and micro-enterprise businesses may lack 'absorptive capacity' (HM Government 2018), leading to them being less able to obtain, absorb and utilise new knowledge. The 2018 Sector Deal also acknowledges difficulties related to business size in the creative industries in relation to their abilities to exploit and protect their intellectual property (which was a finding in at least one case study) and also their ability to export, which is a key target of the Sector Deal (HM Government 2018). None of the micro-enterprises in the study expressed growth aspirations, nor did they discuss export plans.

The creative industries review undertaken by Bazalgette (2017) identified that "small and micro-enterprises, which make up a disproportionate percentage of the Creative Industries, lack the information and many of the corporate functions of larger firms (e.g. legal IP advice, HR support, marketing)" (Bazalgette 2017: 17), but this is not picked up later in this report or in the Industrial Strategy Sector Deal that followed. Given this recommendation, based on sector knowledge and the findings of this study (that micro-enterprise ecosystems have indeed sought out a large proportion of these information and corporate functions), there is a possibility that policy level support could focus on strengthening hubs that deliver this offer to the creative industries. Likewise, as the latest Industrial Strategy document sets out:

> *"while the creative industries are highly innovative, they are characterised by an abundance of SMEs spread across sectors. As a consequence, they can lack the capacity for strategic, cross-sectoral R&D, including linkages with […] universities."*
>
> (HM Government 2018: 31)

This could equally form a focus for support initiatives, and also highlights the role that Higher Education Institutions (HEIs) can, and indeed are being expected to, play in creative ecosystems. There are contemporary references to both the evolutionary aspects of ecosystem development and also the talent pipeline that feeds the creative industries (Bazalgette 2017, Neelands et al. 2015). Education, training and skills were referenced across all the creative ecosystem mapping approaches emerging from this study, and in particular there seemed to be a role for Higher Education Institutions in supporting the sector-specific and the general business development needs of a creative ecosystem. Universities formed a significant element of the secondary-data driven mapping as well as featuring in several of the micro-enterprise journeys mapped in this study. There is the potential to link the existing strength of HEIs to the under-developed governance function of the overall ecosystem, and for universities to position themselves as guardians or keystones of their own creative ecosystem areas (Iansiti and Levien 2004, Isenberg 2011, Moore 1996). This suggestion has particular resonance in a policy environment still coming to terms with the implications of exiting the European Union and the financial impacts on Higher Education that are likely to result. Placing Higher Education Institutions in a governance role for creative ecosystems could offer opportunities in bringing together economically and culturally significant industry sectors, with the focus on place identified above.

d) Toward a creative ecosystem?

The focus of this study was shaped by the lack, to date, of sector-specific applications of any ecosystem mapping approach. In 2017, Spigel and Harrison (2017) identified the need for further inquiry:

> *"There is a need for rigorous social science inquiry both into the basic definition of ecosystems, to validate the importance of individual attributes, and into factors identified by existing research as being crucial components of ecosystems."*
>
> (Spigel and Harrison 2017: 165)

As outlined in the introduction, the purpose of the ecosystem approach is also an important consideration, and this is discussed further below with reference to both the findings of the study and the continuing discussions around ecosystem.

Purpose

The literatures tend toward the purpose of the ecosystem analogy in the cultural and creative context as identifying the support that can be provided once the ecosystem framework has been used to identify areas of need (Bakalli 2014, Jeffcutt 2004, Neelands et al. 2015). Within this study, the purpose of the ecosystem cannot be determined from the mapping using secondary data. However, the majority of elements here were infrastructure related, and not specific to the sectors identified by government as comprising the creative industries, which offers a useful reminder that the ecosystem is a structure or system with which to engage. For stakeholders, the purpose of the ecosystem varied depending on the position of the interviewee within the sector, and from this chapter, education, infrastructure and finance were all dominant aspects as discussed below. For micro-enterprises, purpose was a critical driver behind the construction of their own ecosystem, and this was also specific to their position and the focus of their business.

This sets the creative ecosystem apart from other approaches. It is not an entrepreneurial ecosystem (after Isenberg) because it does not seek to generate regional growth and innovation through entrepreneurship. Nor does it fit within the scope of Moore's business ecosystem approach as it extends beyond the strategic options for a particular organisation. The cultural ecology model is shown in this study to have a narrower focus than the creative ecosystem approach, which acknowledges a wider range of actors and connections. Adner (2017) suggests that the "notion of ecosystems has […] focused attention on new models of value creation and value capture" (Adner 2017: 39), which bears some alignment with the discussions of the cultural and creative setting.

Definitions

On the creative ecosystem: chapter 8

As demonstrated in this study, there is no agreement between definitions of ecosystem, which is linked to the variety of purposes driving the ecosystem approaches themselves. When comparing secondary data that had been mapped across three prominent ecosystem models, there was no definitional agreement and thus no 'meta-ecosystem' developed from this study. The secondary data mapping in itself does not work toward a definition of ecosystem but the balance of features mapped using these methods do suggest a mixture of sector-specific and more general business support, infrastructure elements, policy and regulatory support, and education, training and skills. The stakeholders approached in this study took differing approaches to defining the ecosystem depending upon their position within the creative sector, which serves to underline the relational nature of the concept.

Despite the very definition of the creative industries being focused on "wealth and job creation" (Department for Culture Media and Sport 1998), the creative sector as characterised and explored in this study drives decidedly against these growth-focused ecosystem understandings. In growth-focused approaches large firms and spillovers are important and there is a critical role for finance and venture capital (Drexler et al. 2014, Greene and Patel 2013, Mason and Brown 2014), which is not borne out by the creative ecosystem as mapped in this study. Several studies propose taxonomies of ecosystems across the various definitions that includes emerging and scale-up ecosystems (Adner 2017, Brown and Mason 2017, Jacobides et al. 2018), the creative sector does not easily fit into any of these approaches.

Furthermore, the approach taken here revealed that there is movement within the sector's own construct of itself. The mapping approach using secondary data found little sector-specific support, but noted that where this existed, it covered all creative industry sub-sectors. Initially this was read as a lack of specificity in approach, but both stakeholder and case study investigations also produced insights into the ways in which creative practice is transcending sub-sector, and often industry sector, boundaries. This has implications for future policy and research approaches – the boundaries of the creative sector seem to be as fluid and dynamic as the work within them. It is also useful to remember that this sector is relatively new and certainly dynamic so the range of terms

being ‘tried on’ to describe it are indicative of this “fast changing and vibrant activity” (Dovey and Pratt 2016: 7).

Factors identified as crucial components

Three ecosystem approaches were identified from the literatures as having relatively clearly defined component parts that were then used as frameworks for coding and analysing data. Stakeholders identified a range of factors as relevant to their conceptualisation of the creative ecosystem, showing some overlap with the theoretical frameworks but also a more contextualised framing. This study’s examination of micro-enterprise journeys did not reveal additional specific categories but did identify the importance of both formal and informal connections in the way that they constructed their own ecosystems. This is supported by research identifying that the presence of, and interaction between, formal and informal aspects is particularly important in ‘dynamic’ ecosystems (Brown and Mason 2017). At the formal level, several discussions have identified the critical role of governance in managing the ecosystem, either through organisations within the system taking the lead, or from the policy and regulation perspective (Dovey and Pratt 2016, Isenberg 2011, Jeffcutt 2004). Governance roles were not a feature of the mapped ecosystem in this study, which could suggest that this is an area for future focus in order to strengthen the creative ecosystem’s development.

The application of each of these three models highlights that the component parts are not evenly balanced across this ‘mapping’ of a sector area. There is no literature suggesting that an even balance across the ecosystem elements is the ideal end point, so the question of balance, and relative importance, is an area for further exploration but as Martin (2015) points out in relation to economic distribution, “‘perfect’ spatial balance is an unachievable goal and is at best an ideal or abstract ‘reference point’”. The relative balance of each of the component aspects could be seen as a useful marker of the current policy and industry environment.

e) Directions for future research

As Brown and Mason (2017) point out, ecosystem has become a “complex, variegated and temporally discontinuous phenomena” (2017: 26). This study offers a valuable contribution to the process of applying the ecosystem construct, because it starts to map the system - and the whole point of a useful system is that it is specifically applied (underlining the importance of sector specificity despite resistance to this from some ecosystem theorists). There are many possible directions to continue this research approach, to either deepen or widen the understandings begun here. Taking into account the parallel approaches of other investigations of, mainly entrepreneurial, ecosystems, the following areas emerged from this study as viable opportunities to develop this approach.

None of the constructs individually offers a full and nuanced understanding of the ecosystem. Notwithstanding Martin’s (2015) points about realistic expectations of spatial distribution (and in this case ecosystem is standing in for geography), the findings above around the lack of a meta-framework, and the problems in applying the ecosystem frameworks suggests that there is scope to revise the models, and or the means of populating them. Mapping across a set of categories using a coded process allowed for the use of all data collected, as there was no real sense of confirming or disconfirming data – all of the data collected was relevant in building a picture, rather than proving or disproving a theory.

Taking a social network analysis approach to the points of connection within the existing ecosystem map would be a useful addition to the data which expands the richness. The initial approach would be to revisit the data already collected and apply a social network analysis to the connections identified. The boundaries of the current study would provide a manageable framework for an extension of this nature. The purpose of this additional approach would be to develop a deeper and richer picture of a sectorally located ecosystem and to start to investigate the purposes, meanings and directions of the relationships within it, responding to many of the questions raised in this investigation. Dovey et al. (2016) did apply a variation on this model, albeit not using the ecosystem constructs that framed this study.

An alternative approach would be a longitudinal approach to ecosystem mapping at specific points in the life cycle of selected organisations within a city, region or sector. Repeated ecosystem maps, using a refined mapping model, would create ecosystem profiles at different business stages. This responds to the concerns over the time taken to develop healthy ecosystems that were identified in literature and through the empirical work.

This study took a qualitative approach and focused on testing the models as well as developing the creative ecosystem map. There is also the possibility of incorporating more or additional quantitative approaches as demonstrated in the Californian cultural ecology example (Markusen et al. 2011), with a specific UK focus and incorporating the considerations highlighted in this study.

f) Contributions of this study

The research question asked whether the theoretical construct of ‘ecosystem’ was useful for understanding creative industry micro-enterprises in order to better support them through policy and other interventions. To return to the areas of focus outlined in chapter one, this investigation can now make the following statements against each of the areas in Figure 8.1 below:

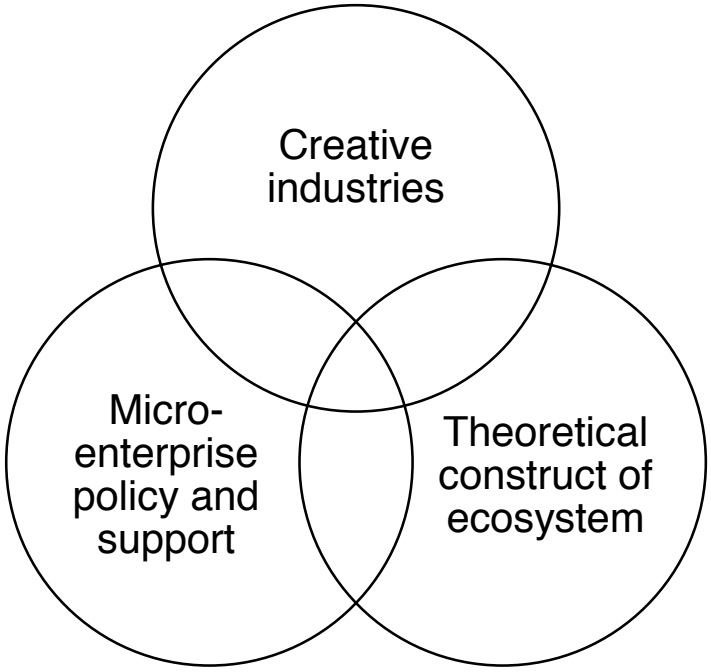

FIGURE 8.1: AREAS OF CONTRIBUTION

This study focused on the creative industries in the UK, exploring the theoretical constructs of 'ecosystem' as developed in business and entrepreneurship literature, including how it has contributed to the discussion of the ecosystem as a means of understanding the modern economy (Barker and Henry 2016, Roodhouse 2011). The study also advances the academic discussion of these topics and offers a contextual application of the ecosystem concept that is gathering traction in academic and policy discourse.

This investigation also worked toward a richer qualitative understanding of *sector-specific* approaches to the ecosystem construct. This thesis therefore adds to the growing body of evidence on the application of the ecosystem concept, seeking to move toward a shared approach. This study also contributes to the current field of creative industries entrepreneurship, drawing on entrepreneurship and innovation literatures as well as cultural and creative industries policy. The outcomes of the study form a test of the

ecosystem mapping approach, and in so doing, offer an original contribution to knowledge by reflecting on the specific paths and features of cultural and creative micro-enterprise ecosystems. Through the chosen methods, the study offers a tool with which to reflect on existing policy and support approaches.

Whilst the theoretical construct of 'ecosystem' *is* potentially useful for understanding creative sector micro-enterprises it needs further development before it can be applied consistently to better support them through policy and other interventions. This study offers a useful contribution to the development of ecosystem application. It also offers a theoretical contribution to knowledge and understanding of the creative industries, by showing that there is a broader range of contributing factors than the current terminology might allow. The study has developed and applied a unique methodological approach to ecosystem mapping that contributes to knowledge in two key ways. Firstly, it offered a starting point to test ecosystem approaches for practical applicability, which is an important conversation and research approach to continue. It did this by gathering data on the organisations and other features related to the creative sector within each of three ecosystem frameworks. Secondly it tested the sector-specific applicability of current ecosystem approaches, showing that whilst sector knowledge offers useful context to build an ecosystem map, further work is needed to ensure that ecosystem approaches reflect the breadth of a sector from a secondary data-driven perspective. This in turn underpins the documented shortcomings of statistical data in relation to the creative industries.

The device of the ecosystem is also useful in helping to understand the drivers and scale of creative micro-enterprises as shown in chapter seven. This lens on the investigation shows that the ecosystem maps of micro-enterprises are more regional than national or international, and that they engage with a broad range of organisations and entities both within and outside creative industry sector definitions. The case study approach, incorporating the business journey, also revealed that micro-enterprises are not motivated by growth as policy seems to assume, and that they value collaboration and co-existence over competition.

Overall, the study offers a number of insights into the benefits and drawbacks of applying the ecosystem construct to a specific industry sector, and points to future research directions in order to consolidate and further this area. In addition, for the creative industries and particularly micro-enterprises, the study suggests that there are broader factors to consider in developing future policy and support interventions, and that the ecosystem approach could, with refinement, be a useful tool with which to achieve this.

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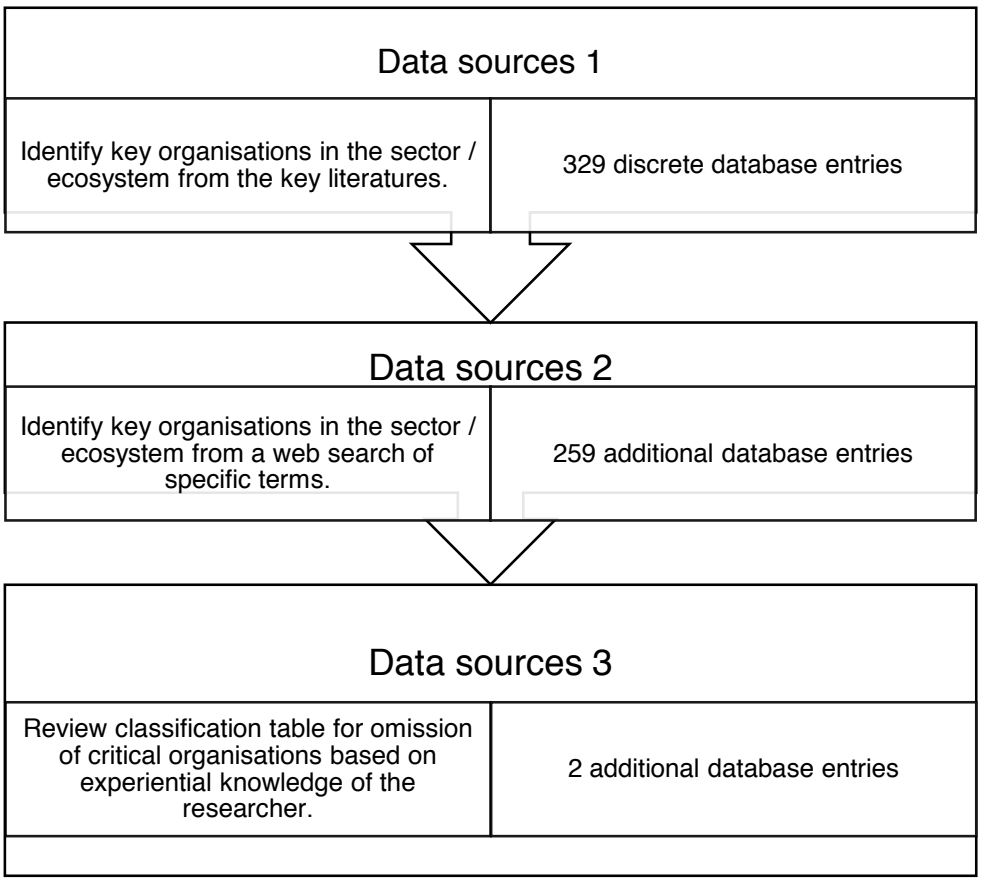
Appendices

Appendices to Chapter 3

3.1 Numbers of database entries generated by each step of the process.



3.2: Attribute tags and rationale for their inclusion

Attribute tag	**Explanatory detail**
Name of organisation	
Creative or cultural sector supported	The creative industry sub-sectors using UK Government definitions
Culture	Isenberg's domains of support – split out to individual attribute tags for secondary data-driven because an organisation can be in more than one category. Considered as single attributes for case study analysis because the relationship was more focused.
Finance	
Human capital	
Markets	
Policy	
Support	
Holden's role type	• Guardian • Nomad • Platform • Connector • Not applicable It is not possible for an organisation to fulfil more than one of these roles so they are contained within a single attribute tag.
Moore's functions	• Government and regulatory • Stakeholders • Standards bodies • Suppliers • Core contributors • Customers • Competitors • Complementors • Distribution channel • Not applicable It is not possible for an organisation to fulfil more than one of these roles so they are contained within a single attribute tag.
Organisation status or structure	Classifying the database entry by organisation type and function allows further analysis of the features of the ecosystem and includes sources of support that may not be organisations.
Function	
SIC code	The primary SIC code reported for the organisation (or the closest match where this was not self-reported or where the database entry was not an organisation)
Source – literature	This box was checked according to the source of the database entry, which can track the expansion of the ecosystem map. An organisation / feature may appear in more than one stage of the search, so discrete attribute tags were created for each stage.
Source – online search (general support)	
Source – experiential knowledge	
Source – key informant	
Source – case study interview	
Geographic area covered	
Physical location	

3.3: Ethics process for stakeholder and case study interviews

Stakeholders: invitation to participate

Dear (creative industry stakeholder),

Negotiating the creative ecosystem: cultural and creative microenterprise business journeys

I write to you as a PhD Researcher at the Centre for Business in Society, Coventry University. I am undertaking research on the business journeys of microbusinesses in the creative sector and how well these are supported by enterprise and industrial policy.

The initial research has entailed mapping the landscape and environment of support organisations for the cultural and creative sector and interviews of key organisations. I am now approaching a targeted number of stakeholders across the creative sector for interview. As a representative of a key organisation linked to the sector, I would very much value your contribution to my research and I am writing to you to request an interview. The interview would discuss the landscape mapping referred to above, and the range of organisations and support that it features.

The face-to-face research interview would take around 1 hour. I would like to tape the interview if possible to allow subsequent analysis but this would not be essential.

I hope that the research will be of use to you and your organisation in relation to the support you provide to creative sector businesses and in this regard, I would provide a short written summary or presentation to you of the findings of the study.

Should any further details be required, please do not hesitate to contact me on 07967 116778 / barkerv@uni.coventry.ac.uk or my supervisor, Dr Nick Henry, Co-Director, Centre for Business in Society (nick.henry@coventry.ac.uk; +44 (0)7557 425064).

I very much hope you are able to contribute to my research and I look forward to hearing from you.

With kind regards,

Stakeholders: informed consent form

Informed Consent Form

The research seeks to understand and analyse the business journeys of microbusinesses in the creative sector, and how well these are supported by enterprise and industrial policy. Findings are expected to support commentary on the emerging concept of an ecosystem.
You have been asked for an interview about the landscape and mapping of the cultural and creative ecosystem, based on your perspective and expertise in the sector.

	Please tick
1. I confirm that I have read and understood the participant information sheet for the above study and have had the opportunity to ask questions.	☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time before the 31st April 2017 without giving a reason.	☐
3. I understand that all the information I provide will be treated in confidence.	☐
4. I understand that I also have the right to change my mind about participating in the study for a short period after the study has concluded (31st April 2017).	☐
5. I agree to be (audio) recorded as part of the research project	☐
6. I agree to take part in the research project	☐

Name of participant: .....

Signature of participant: .....

Date: .....

Name of Researcher: .....

Signature of researcher: .....

Date:

Stakeholders: participant information sheet

Negotiating the creative ecosystem: participant information sheet
You are being invited to take part in a research study conducted by Victoria Barker, a research student at the Centre for Business in Society (CBiS). This letter sets out why the research is being conducted and what it will involve, so that you can decide whether or not you wish to take part.

Purpose of the study
The project explores the idea of a 'creative ecosystem' – what this might look like, and how it has been or could be used by microbusinesses in the creative sector. The first stage maps this 'ecosystem' by noting the organisations and support options available. The second stage involves interviewing contemporary craft microbusinesses about their business journey and the support they have both looked for and received. The final stage of the work compares these two approaches.
The results of this study will be incorporated into a PhD thesis and will also be used in conference papers, publications and reports to academics, practitioners, support organisations, government and policy makers. Anonymity of participants will be maintained at all times.

Your involvement
You are invited to participate because you are able to comment on the policy and support aspects of the ecosystem that feature on the map, and to identify any missing elements from your unique perspective. By taking part you are helping to collect data to inform academic research, which in turn will make recommendations to policy and sector bodies so that they can better support businesses like yours.

What will I need to do?
If you would like to take part in the research, you will be invited to participate in an interview with the researcher. Before the start of the interview you will have the opportunity to ask any questions about the research and what your participation involves.
During the interview we will explore a draft map of the cultural and creative ecosystem at national level. I will ask you to add supplementary sources of support and advice, and to discuss how useful this concept might be at policy and support level.
You are free to withdraw any information you provide by 31st April 2017 prior to data analysis and without giving a reason. A decision to withdraw, or a decision not to take part, will not affect you in any way.

Data protection and confidentiality
- Information collected during the course of this research will be kept strictly confidential, and your responses will be anonymised.
- Data collected will be allocated a unique reference number rather than name to ensure anonymity. You have the right to withhold information from the researcher.
- If you consent to having the interview discussions recorded, all recordings will be destroyed at the end of the project.
- Transcripts from the research will be stored in password protected files.
- Your consent information will be stored separately from your responses and data, to limit the possibility of you being identified in the event of a security breach.
- All data from this research will be destroyed after five years.

The research is funded by Coventry University, Faculty of Business and Law; and Creative United, a community interest company. The principal investigator is Victoria Barker. The study approach has been reviewed and approved by Coventry University's Ethics Committee.

For further information:
If you have any questions, or need further information about any aspect of this research, please contact the principal investigator: Victoria Barker, Centre for Business in Society (CBiS), Jaguar Building, Priory Street, Coventry, CV1 5FB; tel: 07967 116778; email: barker@uni.coventry.ac.uk

Making a complaint:
If you are unhappy with any aspect of this research, please contact the principal investigator in the first instance. If you still have concerns and wish to make a formal complaint about the conduct of the research, please write to:
Dr Nick Henry, Co-Director, Centre for Business in Society, Coventry University, Priory Street, Coventry, CV1 5FB
n.henry@coventry.ac.uk

In your letter please provide as much detail as possible about the research, the name of the researcher and the nature of your complaint.

Case study businesses: invitation to participate

Dear (creative business owner),

Negotiating the creative ecosystem: cultural and creative microenterprise business journeys

I write to you as a PhD Researcher at the Centre for Business in Society, Coventry University. I am undertaking research on the business journeys of microbusinesses in the creative sector and how well these are supported by enterprise and industrial policy.

The initial research has entailed mapping the landscape and environment of support organisations for the cultural and creative sector and interviews of key organisations. I am now approaching a targeted group of microbusinesses in the creative sector for interview. As a creative business owner in the contemporary craft field I would very much value your contribution to my research and I am writing to you to request an interview. The interview would discuss the history and key milestones in your business journey and the range of people, support, assets and infrastructure you have drawn on over time.

The face-to-face research interview would take around 1.5 hours with a subsequent short follow-up discussion to discuss a summary of the interview. I would like to tape the interview if possible to allow subsequent analysis but this would not be essential. At the time of the interview I would request also any copies of business documents you may have that help to describe your creative product and your commercial approach.

I hope that the research process itself would act as a reflective and development opportunity for you in discussing your business, plans and support and I would provide a short graphical and written summary to yourself of your described business journey.

Should any further details be required, please do not hesitate to contact me on 07967 116778/barker@uni.coventry.ac.uk or my supervisor, Dr Nick Henry, Co-Director, Centre for Business in Society (nick.henry@coventry.ac.uk; +44 (0)7557 425064).

I very much hope you are able to contribute to my research and I look forward to hearing from you.

With kind regards,

Victoria Barker

Case study businesses: informed consent form

Informed Consent Form

The research seeks to understand and analyse the business journeys of microbusinesses in the creative sector, and how well these are supported by enterprise and industrial policy. Findings are expected to support commentary on the emerging concept of an ecosystem.
You have been asked for an interview about the history and key milestones in your business journey and the range of people, support, assets and infrastructure you have drawn on over time.

	Please tick
1. I confirm that I have read and understood the participant information sheet for the above study and have had the opportunity to ask questions.	☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time before the 31st April 2017 without giving a reason.	☐
3. I understand that all the information I provide will be treated in confidence.	☐
4. I understand that I also have the right to change my mind about participating in the study for a short period after the study has concluded (31st April 2017).	☐
5. I agree to be (audio) recorded as part of the research project	☐
6. I agree to take part in the research project	☐

Name of participant: .....

Signature of participant: .....

Date: .....

Name of Researcher: .....

Signature of researcher: .....

Date:

Case study businesses: participant information sheet

Negotiating the creative ecosystem: participant information sheet
You are being invited to take part in a research study conducted by Victoria Barker, a research student at the Centre for Business in Society (CBiS). This letter sets out why the research is being conducted and what it will involve, so that you can decide whether or not you wish to take part.

Purpose of the study
The project explores the idea of a 'creative ecosystem' – what this might look like, and how it has been or could be used by microbusinesses in the creative sector. The first stage maps this 'ecosystem' by noting the organisations and support options available. The second stage involves interviewing contemporary craft microbusinesses about their business journey and the support they have both looked for and received. The final stage of the work compares these two approaches.
The results of this study will be incorporated into a PhD thesis and will also be used in conference papers, publications and reports to academics, practitioners, support organisations, government and policy makers. Anonymity of participants will be maintained at all times.

Your involvement
You are invited to participate in stage two of the study because you run a contemporary craft microbusiness, and you are able to comment on the journey that your business has taken to date. By taking part you are helping to collect data to inform academic research, which in turn will make recommendations to policy and sector bodies so that they can better support businesses like yours.

What will I need to do?
If you would like to take part in the research, you will be invited to participate in an interview with the researcher. Before the start of the interview you will have the opportunity to ask any questions about the research and what your participation involves.
During the interview we will complete a short form that collects basic information about your business (how long you have been in operation, number of staff, etc). I will ask you to complete a timeline sketch of the business so that we can use this to focus our discussion on key decision points and sources of support.
I will also ask if you have any further business documents that help to describe your creative product and your commercial approach - this could include company reports, grant applications, promotional material, or photographs. The selection of materials will be agreed between us and will remain confidential to the project.
If possible, I would like to schedule a follow up discussion to show you my analysis of the interview, and to see if this prompts any further insights.
You are free to withdraw any information you provide by 31st April 2017 prior to data analysis and without giving a reason. A decision to withdraw, or a decision not to take part, will not affect you in any way.

Data protection and confidentiality
- Information collected about you and your business during the course of this research will be kept strictly confidential, and your responses will be anonymised.
- Data collected will be allocated a unique reference number rather than name to ensure anonymity.
- The study explores the business journey including performance, which is commercially sensitive and could be linked to personal information. You have the right to withhold information from the researcher.
- If you consent to having the interview discussions recorded, all recordings will be destroyed at the end of the project.
- Transcripts from the research will be stored in password protected files.

- Your consent information will be stored separately from your responses and data, to limit the possibility of you being identified in the event of a security breach.
- All data from this research will be destroyed after five years.

The research is funded by Coventry University, Faculty of Business and Law; and Creative United, a community interest company. The principal investigator is Victoria Barker. The study approach has been reviewed and approved by Coventry University's Ethics Committee.

For further information:
If you have any questions, or need further information about any aspect of this research, please contact the principal investigator: Victoria Barker, Centre for Business in Society (CBiS), Jaguar Building, Priory Street, Coventry, CV1 5FB; tel: 07967 116778; email: barker@uni.coventry.ac.uk

Making a complaint:
If you are unhappy with any aspect of this research, please contact the principal investigator in the first instance. If you still have concerns and wish to make a formal complaint about the conduct of the research, please write to:
Dr Nick Henry, Co-Director, Centre for Business in Society, Coventry University, Priory Street, Coventry, CV1 5FB
n.henry@coventry.ac.uk

In your letter please provide as much detail as possible about the research, the name of the researcher and the nature of your complaint.

3:4: Interview guide for stakeholder interviews

Guide for semi-structured interview sessions
[resource requirements= a4 paper, coloured pens, recording equipment, consent forms, participant information sheet copies; ecosystem web sheets]

- check that participant information sheet is understood
- check that two stage process is understood (background, ecosystem map)
- check that it is ok to record audio of session for transcription
- obtain signature(s) on consent form

1. Stakeholder background

Develop from introductory discussion above and ask stakeholder to confirm / discuss:

- Their current position within the creative industries
- Their understanding / description of the industry sector in which they work
- The involvement they have with microenterprises to provide support
- Their understanding and definition of ecosystem

2. Ecosystem map
[resource requirements= ecosystem map overview, sub-sector based ecosystem maps, coloured pens]

Explain how I have arrived at the visualisation of the creative and cultural ecosystem map, i.e. it uses the idea of ecosystem pillars which I have drawn out of research. It is populated with categories of organisation or other support features in each pillar. There are two versions of this, one is an overview and the other takes a sub-sector perspective to look at one [or more] areas in more detail.

I would like to gather any missing organisations or features from your stakeholder perspective and discuss in brief why these are important.
= Fill in further sources of support drawn from the major pillars (with explanatory text) of entrepreneurial ecosystem.

3.5: Example of interview coding approach

It is quite a big question. What's the definition of an ecosystem? I suppose and I have certainly heard the term ecology used more often, possibly interchangeable, I don't know, that's something obviously we need to discuss, now I suppose when you're thinking about an ecosystem, I guess you're thinking about the perhaps if you like, the organism at the centre of it which would be a creative business, the creative industries and then you know, what else does it interact with, rely on, so on one level there's supply chain, both the supply chain that a creative business might use and also it might be part of a supply chain as well into another part of the economy. So that's a sort of business ecosystem. I suppose more conception, I mean would you have, are we thinking specifically about organisations in an ecosystem or some things like…	***Complexity*** ***Ecological metaphors*** ***Structure*** ***Connections*** ***Connections*** ***Purpose of ecosystem***
With a, you know, the sort of legislative regulatory fiscal framework might form part of the ecosystem as part of the context that it operates in. So in that sense you've got a kind of governmental element, as well, public agencies that the parts of creative industries might provide funding or regulation. Then I suppose just thinking, I'm just kind of thinking [19.04.7]. If you think about the people in it, you've also I guess then got the educational system, and entities that also, that will train people and provide peoples skills, you know, provide the entry routes into the business.	***Regulatory*** ***Regulatory*** ***Role of policy*** ***Ecosystem is inhabited Education*** ***Journeys***

3.6: Long list of case study sites

Sector	Company	Location
Advertising and marketing	Roar Marketing	Tamworth
	Blue Orange Marketing	Codsall
	Indigo Ltd	Moseley
Architecture	Aaron Chetwynd	Stafford
Crafts	John Garland-Taylor Jewellers	Hatton
	http://www.earringcafe.co.uk/	Warwick?
Design: Product, Graphic and Fashion Design	Fashion: Sophie Pittom	Warwickshire
	Maurice Whittingham Couture	Birmingham
	Nonfacture design	Birmingham
Film, TV, video, radio and photography	Full Fat TV	Birmingham
	Adrian Burrows Photographer	?
IT, software and computer services	Formation web design	Warwick
	The Jade Studio - digital / web	Coventry
	GRIN	Birmingham
	Ceri Jam	Warwick
	CV5 Creative - digital / web	Coventry
Publishing	Penny Press	Coventry
	Nine Arches Press?	Rugby
	Emma Press	Birmingham
	Ledbury Poetry Festival?	Ledbury
Museums, Galleries and Libraries	Erasmus Darwin House	Lichfield
	Coventry Watch Museum	Coventry
	Coventry Weavers House	Coventry
	Airspace Gallery	Stoke
	Sampad	Birmingham

Music, performing and visual arts	Creative Factory Walsall	Walsall
	Ego Performance	Coventry
	Albany Theatre	Coventry
	Black Country Touring	West Bromwich
	Theatre Absolute	Coventry
	Pentabus	Shropshire
	Little Earthquake	Walsall
	Mitchell Arts Centre	Stoke
	Coventry Artspace	Coventry

3.7: Specific data sources for case study micro-enterprises

Case study	Interview transcript	Companies House filings	Additional documents
B001	Yes	2009 – 2016	Sample 'to-do' list Proposal letter for new business Website content
B002	Yes	1999 – 2016	Arts Council bid documents
B003	Yes	2014 – 2016	Interviews in press Funding bid documents
B004	Yes	2013 – 2016	Consultation report Website content
B005	Yes	1995 – 2016	Business plan Company history
B006	Yes	2015 – 2016	Artist CV Website content Marketing collateral

3.8: Pro-forma used as guide with case studies

Guide for semi-structured interview sessions
[resource requirements= a4 paper, coloured pens, recording equipment, consent forms, participant information sheet copies; timeline sheets, blank ecosystem web sheets]

- check that participant information sheet is understood
- check that four stage process is understood (business background, timeline sketch, discussion; ecosystem map)
- check that it is ok to record audio of session for transcription
- obtain signature(s) on consent form

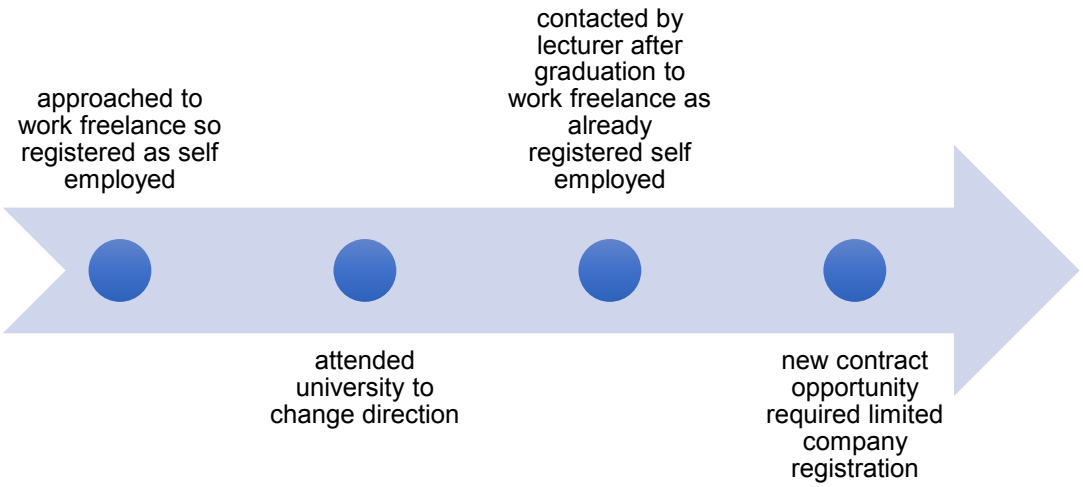
1. Business background

Complete short survey document during interview.

2. Business timeline

[resource requirements= a4 paper, coloured pens]

Example below.



Prompt questions for timeline sketching
- What prompted you / galvanised your decision to set up as a business?
- What were the key decision points or incidents along the way?

Prompt questions for business background
- How did you come up with the product and creative direction?

- What made you want to work in this field?
- What is important to you in your creative practice?
- What materials do you use in your practice – where from and why?
- How do you get your product to customers?
- Where are you from / did you relocate here? Why?

3. Business journey
Use timeline of business journey and key decision points as discussion prompt for interview.

Further prompt questions
- From whom / where have you sought advice and support for creative work / for business work?
- Who are your customers / clients / users (how does the business define them) and where do you find them?
- Who else is in your network?
- Do you have any professional memberships or subscriptions? To whom; are they useful for support / networks?

Appendices to Chapter 5

5a: DCMS creative industries economic estimates methodology: SIC codes

Creative Industries Group	SIC (2007)	Description
Advertising and marketing	70.21	Public relations and communication activities
	73.11	Advertising agencies
	73.12	Media representation
Architecture	71.11	Architectural activities
Crafts	32.12	Manufacture of jewellery and related articles
Design: product, graphic and fashion design	74.10	Specialised design activities
Film, TV, video, radio and photography	59.11	Motion picture, video and television programme production activities
	59.12	Motion picture, video and television programme post-production
	59.13	Motion picture, video and television programme distribution
	59.14	Motion picture projection activities
	60.10	Radio broadcasting
	60.20	Television programming and broadcasting activities
	74.20	Photographic activities
IT, software and computer services	58.21	Publishing of computer games
	58.29	Other software publishing
	62.01	Computer programming activities
	62.02	Computer consultancy activities
Publishing	58.11	Book publishing
	58.12	Publishing of directories and mailing lists
	58.13	Publishing of newspapers
	58.14	Publishing of journals and periodicals
	58.19	Other publishing activities
	74.30	Translation and interpretation activities
Museums, galleries and libraries	91.01	Library and archive activities
	91.02	Museum activities
Music, performing and visual arts	59.20	Sound recording and music publishing activities
	85.52	Cultural education
	90.01	Performing arts
	90.02	Support activities to performing arts
	90.03	Artistic creation
	90.04	Operation of arts facilities

5b: Full count of SIC codes captured in creative ecosystem mapping

82990 Other business support activities n.e.c.	61	11%
85421 First-degree level higher education	52	9%
84110 General public administration activities	47	8%
63120 Web portals	32	6%
94120 Activities of professional membership organisations	25	4%
94990 Activities of other membership organisations n.e.c.	19	3%
85600 Educational support services	19	3%
70229 Management consultancy activities other than financial management	17	3%
94110 Activities of business and employers membership organisations	17	3%
72200 Research and experimental development on social sciences and humanities	15	3%
90010 Performing arts	13	2%
90040 Operation of arts facilities	13	2%
85590 Other education n.e.c	11	2%
90020 Support activities to performing arts	11	2%
58141 Publishing learned journals	11	2%
90030 Artistic creation	10	2%
58110 Book publishing	8	1%
58142 Publishing consumer and business journals and periodicals	8	1%
91030 Operation of historical sites and buildings and similar visitor attractions	7	1%
91020 Museums activities	7	1%
58130 Publishing newspapers	7	1%
63910 News agency activities	7	1%
84310 Regulation of and contribution to more efficient operation of businesses	6	1%
82301 Activities of exhibition and fair organisers	6	1%
85320 Technical and vocational secondary education	6	1%
63990 Other information service activities n.e.c.	5	1%
74909 Other professional, scientific and technical activities not elsewhere classified	5	1%
84120 Regulation of health care, education, cultural and other social services, not incl. social security	5	1%
60200 TV programming and broadcasting activities	5	1%
64191 Banks	5	1%
64929 Other credit granting n.e.c.	4	1%
46180 Agents specialised in the sale of other particular products	4	1%
73200 Market research and public opinion polling	3	1%

59111 Motion picture production activities	3	1%
64110 Central banking	3	1%
70210 Public relations and communications activities	3	1%
91011 Library activities	3	1%
58190 Other publishing activities	2	0%
59113 Television programme production activities	2	0%
59140 Motion picture projection activities	2	0%
62020 Information technology consultancy activities	2	0%
94200 Activities of trade unions	2	0%
96090 Other service activities not elsewhere classified	2	0%
70100 Activities of head offices	2	0%
73110 Advertising agencies	2	0%
84210 Foreign affairs	2	0%
93290 Other amusement and recreation activities n.e.c.	2	0%
Not Applicable	2	0%
64303 Activities of venture and development capital companies	1	0%
47770 Retail sale of watches and jewellery in specialised stores	1	0%
56302 Public houses and bars	1	0%
58120 Publishing directories and mailing lists	1	0%
60100 Radio broadcasting	1	0%
61900 Other telecommunications activities	1	0%
62011 Ready-made interactive leisure & entertainment software development	1	0%
62012 Business and domestic software development	1	0%
70221 Financial management	1	0%
73120 Media representation services	1	0%
74990 Non-trading company	1	0%
84230 Justice and judicial activities	1	0%